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# 9 *Courses of Instruction*

## Course Numbering System

1-039	Nondegree Credit Courses
040-099	Degree Applicable Non-Transfer Courses
100-290*	Degree Applicable and Transfer level courses
299	Directed Studies

\* Courses numbered 100 and above are usually university parallel courses and are offered for transfer to colleges and universities. See course descriptions for any restrictions on transfer.

\*\*FAC and PAC 4300 Series are non-transferable.

## Code for Transferability of Courses

Where applicable, transferability of listed courses is designated by boldface symbols:

**UC** – Transfers to all University of California campuses and to most other four-year colleges.

### **UC (Credit Limit - See Counselor)**

– Transfers to all University of California campuses and to most other four-year colleges, but there are limitations to the number of units that can be accepted for credit. The student should consult a counselor for details.

**CSU** – Transfers to all campuses of the California State University system and to many other four-year colleges.

## *Courses of Instruction*

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Chicano Studies (CHST) .....	159	Management (MGMT) .....	211
Child Development (CD) .....	160	Marketing (MRKT) .....	213
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Civil Design Technology (CIV) .....	164	Mathematics (MATH) .....	214
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# ACCOUNTING

## Division of Business

### ACCT 090

#### Introduction to Accounting

*Advisory: READ 023 or appropriate assessment; MATH 030 or MATH 030D or appropriate assessment; MGMT 052*

This course provides basic knowledge of accounting terms, concepts, and procedures for a sole proprietorship form of business. Topics include the analysis and recording of business transactions for service and merchandising firms, and the preparation of simple financial statements. Accounting for cash, sales, purchases, payroll, and the end-of-the-year procedures is presented. This course is designed for the occupationally-oriented students or those preparing for Financial Accounting and Computerized Accounting.

**3 Units**

**54 Lecture hours**

### ACCT 096

#### Volunteer Income Tax Assistance Program I

*Advisory: READ 023 or appropriate assessment; ACCT 105*

This is the first course in a sequence of two courses designed for students who want to be a part of the Volunteer Income Tax Assistance (VITA) program at Rio Hondo. This course will cover Federal and California tax theories and laws appropriate for the current tax year, and students will apply their knowledge by taking the IRS exams for VITA volunteers. Upon successful completion of the IRS VITA Basic and Intermediate exams, the students will be able to assist low income individuals and families with tax return preparation through the VITA program for the current year.

**1 Unit**

**18 Lecture hours**

### ACCT 097

#### Volunteer Income Tax Assistance Program II

*Prerequisite: ACCT 096*

*Advisory: READ 023 or appropriate assessment*

This is the second course in a sequence of two courses designed for students who want to volunteer in the Volunteer Income Tax Assistance (VITA) program at Rio Hondo. This course will allow students who have successfully passed ACCT 096 to apply their tax knowledge by assisting low income individuals and families with tax return preparation through the VITA program for the current year. Students will learn to use the TaxWise software to accurately file individual federal and state income tax returns within the scope of the VITA program. Students will learn how to develop a system of quality control for actual taxpayer returns as well as

develop their communication skills through interviews of taxpayers and explanation of tax return results.

**1 Unit**

**54 Lab hours**

### ACCT 101

#### Financial Accounting

*Advisory: READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ACCT 090; MGMT 052*

*Transfers to: UC, CSU*

This course is an introduction to the theory, principles and practice of accounting and financial reporting of corporations. Topics include analysis and recording of financial transactions, preparation, analysis and interpretation of financial statements and accounting for assets, liabilities and equities. Computer applications are integrated into the homework. This course is required of all accounting and business administration majors.

**4 Units**

**72 Lecture hours**

### ACCT 102

#### Managerial Accounting

*Prerequisite: ACCT 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course introduces students to the fundamentals of managerial accounting for decision making. Topics include manufacturing cost accounting, cost allocation, cost-volume-profit analysis, absorption and variable costing, differential analysis for decision making, capital investment analysis, budgeting, standard costing, responsibility accounting centers, capital investment analysis, activity-costing, just-in-time environment and financial statement analysis. Computer applications are integrated into the homework. This course is required of all accounting and business administration majors.

**4 Units**

**72 Lecture hours**

### ACCT 103

#### Payroll Accounting

*Advisory: READ 023 or appropriate assessment; ACCT 090 or ACCT 101*

*Transfers to: CSU*

This course combines basic accounting skills with specialized training in payroll accounting to prepare students for entry-level positions within the payroll segment of accounting. This course is designed for accounting majors and those interested in pursuing an entry level positions within the payroll segment of accounting. This course is a comprehensive overview of federal and state payroll laws and their effect on payroll records and required government reports.

**3 Units**

**54 Lecture hours**

### ACCT 104

#### Introduction to Governmental and Not-For-Profit Accounting

*Prerequisite: ACCT 101*

*Transfers to: CSU*

This course provides basic knowledge on accounting concepts and terms applied to state and local governmental entities and not-for-profit entities. Topics include analysis of budgets, tax levies, revenues, appropriations, expenditures, encumbrances, various funds, and financial statements for governmental entities. Additional topics include analysis of various net asset classifications and financial statements for not-for-profit entities. This course is intended to assist students furthering their educational requirements for the CPA exam and to be qualified for governmental and not-for-profit entry level jobs.

**3 Units**

**54 Lecture hours**

### ACCT 105

#### Income Tax Accounting

*Advisory: READ 023 or appropriate assessment; ACCT 101*

*Transfers to: CSU*

Federal and California State income tax laws and preparation as related to individuals and small business entities. Emphasis is placed upon income inclusion, exclusion, exemptions, capital gains and losses, and business and individual deductions. Students who successfully complete the course will be certified by the California Tax Education Council as fulfilling the 60-hour qualifying education requirement (45 federal hours and 15 California hours) imposed by the State of California for becoming a Registered Tax Preparer.

**4 Units**

**72 Lecture hours**

### ACCT 106

#### Computerized Accounting

*Advisory: READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ACCT 090; ACCT 101*

*Transfers to: CSU*

This course is designed to provide students with a sound basic knowledge of how computerized integrated accounting systems function. Students will be processing accounting data using receivables, payables, inventory, payroll and project modules. This course is designed for accounting majors, those interested in starting a small business, and those interested in pursuing entry-level positions in the field of accounting.

**3 Units**

**54 Lecture hours**

### ACCT 201

#### Intermediate Accounting I

*Prerequisite: ACCT 101*

*Transfers to: CSU*

This course provides basic knowledge of the FASB Conceptual Framework of Accounting from both conceptual and application perspectives. Topics include accounting theory; preparation of income statements, balance sheets and statement of cash flows; earnings management;

revenues recognition; inventory valuation; investments in noncurrent operating assets. This course is intended to assist students furthering their educational requirements for the CPA exam and to be qualified for higher level accounting jobs.

**3 Units**  
**54 Lecture hours**

**ACCT 202**  
**Intermediate Accounting II**

*Prerequisite: ACCT 201*  
*Transfers to: CSU*

This course provides basic knowledge of financial statement analysis. Topics include accounting theory; equity and debt financing; present value and amount concepts; employee compensation; pensions; leases; earnings per share; financial statement ratio analysis; accounting changes and error analysis. This course is intended to assist students furthering their educational requirements for the CPA exam and to be qualified for higher level accounting jobs.

**3 Units**  
**54 Lecture hours**

**ACCT 203**  
**Introduction to Cost Accounting**

*Prerequisite: ACCT 101 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment*  
*Transfers to: CSU*

Introduction to Cost Accounting takes a logical approach to the fundamentals of cost accounting as applied to a manufacturing business, and the use of cost data in management decisions. Principles and procedures of cost systems are presented first in an overview, then discussed and illustrated in detail. The course provides thorough coverage of job order costing, process costing, and standard costs. Analysis of cost data is integrated with discussions of cost accounting systems and procedures. Students will also evaluate both quantitative and qualitative data to assist management with strategic decision-making, planning, and controlling. This course is designed for accounting majors and those interested in furthering their knowledge and understanding of managerial accounting.

**3 Units**  
**54 Lecture hours**

**ACCT 290**  
**Cooperative Work Experience/Internship for Accounting Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to

instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Accounting and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**ACCT 299**  
**Directed Study: Accounting**

*Transfers to: UC, CSU*  
Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and / or appropriate projects. To enroll in an independent study / directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## ADMINISTRATION OF JUSTICE

### Division of Public Safety

**AJ 041**  
**Effective Written Communications for Public Service Personnel**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

This course is designed to provide Administration of Justice or other interested students with intensive training in communication of facts and information of ideas in simple,

clear, logical English. An emphasis will be placed on spelling, correct usage of words, sentence structure, critical reading and discussion, creative thinking, techniques of observation, and other skills that lead to good writing. Topics include organization of ideas and are combined with an abundant practice in the writing of effective reports, bulletins, memos, letters, and other short papers.

**3 Units**  
**54 Lecture hours**

**AJ 060**  
**Basic Firearms**

*Prerequisite: Department of Justice (DOJ) clearance*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

This course is designed for students interested in learning the proper use and storage of firearms. This course consists of instruction and demonstration in the safe handling, firing and care of firearms, related matters of legal liabilities, moral responsibilities and safety. The basics of marksmanship and range procedures are taught and the student is supervised in comprehensive scheduled range firing exercises. Introductory demonstrations in the operation of the police shotgun and semiautomatic weapons are also presented.

**1 Unit**  
**9 Lecture hours**  
**27 Lab hours**

**AJ 070**  
**Advanced Firearms**

*Prerequisite: AJ 060 and Department of Justice (DOJ) clearance*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

This course is designed to acquaint Administration of Justice or other interested students with the legal provisions and safety precautions associated with the use of firearms. A pistol match competition will be arranged by the instructor. The course laboratory work provides supervised instruction in the firing of handguns and shotguns.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

**AJ 101**  
**Introduction to Administration of Justice**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides an introduction to various elements of crime and the criminal justice system, including the history and philosophy of the Administration of Justice in America. Topics addressed include the development of the criminal justice system, identification of the various subsystems, role expectations, and their interrelationships. Also considered are the theories of crime, punishment, adjudication, and rehabilitation and training for professionalism in the

entire system. This course is designed for those intending to pursue a career in the criminal justice system.

**3 Units**  
**54 Lecture hours**

**AJ 102**  
**Criminal Procedures**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth study of the legal responsibilities of law enforcement. An emphasis will be placed on the judicial segment of the administration of justice system. Topics include laws of arrest, custody, past, present, and future analysis of the procedures for each subsystem within the administration of justice system from initial entry to final disposition. The relationship each segment maintains with system members will also be covered.

**3 Units**  
**54 Lecture hours**

**AJ 104**  
**Legal Aspects of Evidence**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*  
*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth study of evidence rules. An emphasis will be placed on the application of rules in preparing and presenting evidence. The course will discuss the history and approach to the study of evidence. Topics include proof by evidence and substitutes, general admissibility tests, evidence by way of witness testimony, documents, real evidence, and exclusion of evidence on constitutional grounds. For a better understanding of the evidence rules, judicial decisions are cited and students will be required to brief cases.

**3 Units**  
**54 Lecture hours**

**AJ 105**  
**Community Relations/Multicultural Issues Within Public Service**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*  
*Transfers to: UC, CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of the relationship between community welfare and law enforcement. An emphasis will be placed on the role of modern police in a metropolitan community.

**3 Units**  
**54 Lecture hours**

**AJ 106**  
**Criminal Law I**

*Prerequisite: AJ 101 with a grade of "C" or better, or completion of PAC 040 or equivalent*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: AJ 106 or AJ 107)*

This course is designed to provide Administration of Justice or other interested students with an in-depth study of the legal processes from pre-arrest through trial. Topics include sentencing procedures, a review of the history of case and common law, and conceptual interpretations of law as reflected in court decisions. An emphasis will be placed on case law methodology and case research as the decisions impact upon the procedures of the justice system.

**3 Units**  
**54 Lecture hours**

**AJ 107**  
**Criminal Law II**

*Prerequisite: AJ 101 with a grade of "C" or better, or completion of PAC 040 or equivalent*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: AJ 106 or AJ 107)*

This course is designed to provide Administration of Justice or other interested students with a comprehensive discourse on criminal statutes and their definition. Topics include classification as applied to the system of administration of justice, crimes against persons, property, general statutes, and health and safety statutes as well as other state and federal laws.

**3 Units**  
**54 Lecture hours**

**AJ 200**  
**Introduction to Forensic Chemistry**

*Prerequisite: Grade of "C" or better in each of the following courses: BIOL 101; CHEM 231; PHYS 160; MATH 130*

*Advisory: ENGL 101*

*Transfers to: CSU*

This course is designed to provide the student who has an interest in forensic science with an overview of the role of forensic science and the crime laboratory analyst in the legal system. The focus is on non-biological evidence, such as controlled substances and toxicology, trace evidence, and firearm evidence. Students will develop the skills necessary to evaluate the applicability of each method as it applies to particular case situations. Issues of scientific versus legal burdens of proof, legal terminology, and trial procedure will also be discussed.

**3 Units**  
**54 Lecture hours**

**AJ 201**  
**Introduction to Forensic Biology**

*Prerequisite: AJ 200*

*Advisory: ENGL 101*

*Transfers to: CSU*

This course is designed to provide students with an introduction and broad overview of the forensics sciences. The emphasis will be on the application of biological sciences to legal investigations. It will provide an understanding of various physiological fluid and DNA testing methodologies and their applicability to forensic science. Students will learn the skills necessary to evaluate the relevance of each method to particular case situations. Issues of scientific versus legal burden of proof, legal terminology, and trial will also be discussed.

**3 Units**  
**54 Lecture hours**

**AJ 207**  
**Juvenile Law and Procedure**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with techniques for handling juvenile offenders and victims. An emphasis will be placed on the prevention and repression of delinquency, diagnosis and referral of juvenile offenders, and organization of community resources. Juvenile law and juvenile court procedures will be contrasted with adult law procedures.

**3 Units**  
**54 Lecture hours**

**AJ 208**  
**Principles of Investigation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth study of the basic principles for all types of investigation utilized in the justice system. Topics include human aspects in dealing with the public, interviews, evidence, surveillance, follow-up, technical resources, and case preparation. An emphasis will be placed on specific knowledge necessary for handling crime scenes.

**3 Units**  
**54 Lecture hours**

**AJ 215**  
**Vice and Narcotics Control**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of code and case law of vice and narcotics. The course will focus on detection, suppression, apprehension, and prosecution of violators.

Special emphasis will be placed on laws dealing with gambling, prostitution, sex crimes, narcotic identification, and search and seizure.

**3 Units**  
**54 Lecture hours**

#### **AJ 228**

##### **Police Field Operations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*

*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of the history and development of Police Field Operations. Particular emphasis is placed on the planning of field activities. Topics include the functions of patrol, traffic and other preliminary investigative duties of the field officer. The techniques of planning for patrol operations, handling of requests for service, vehicular traffic-related problems, and civil and domestic disturbances are also presented in the course.

**3 Units**  
**54 Lecture hours**

#### **AJ 250**

##### **Contemporary Issues in the Criminal Justice System**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101; AJ 102*

*Transfers to: CSU*

This course is designed to provide Administration of Justice or other interested students with an in-depth understanding of personal and organizational values, beliefs, attitudes and ethics as they affect contemporary issues in the Criminal Justice System. Particular emphasis is placed on the historical foundations which serve as a basis of contemporary decision making. Specific issues to be used in the discussions will vary from semester to semester.

**3 Units**  
**54 Lecture hours**

#### **AJ 275**

##### **Introduction to Forensic Science**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed to prepare Administration of Justice, Forensic Science, and California Peace Officer students for the Forensic Science Identification Program. The course examines the field of forensic science as it pertains to science and law. Topics covered include criminalistics, criminology, psychiatry, dentistry, handwriting and fingerprinting comparison, toxicology, serology and other specialties.

**3 Units**  
**54 Lecture hours**

#### **AJ 290**

##### **Cooperative Work Experience/Internship for Administration of Justice Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in the Administration of Justice field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Law Enforcement and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Law Enforcement or Administration of Justice and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

##### **Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours*

##### **Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

#### **AJ 299**

##### **Directed Study: Administration of Justice**

*Transfers to: UC, CSU*

Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and / or appropriate projects. To enroll in an independent study / directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## **ALTERNATIVE ENERGY TECHNOLOGY**

**Division of Career & Technical Education**

#### **AET 070**

##### **Introduction to Alternative Energy Technology (Same as ET 070)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This course is an introductory course that will examine the theory behind present day energy systems which will include an in-depth analysis of the design and installation of alternate energy systems. Topics will include: solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, and conservation methods used to save energy. Also presented are topics on geothermal energy, fuel cells, biomass systems, and applications of alternate energy in transportation, industrial, commercial, and residential systems. Students will collect solar data using an irradiance meter and determine power consumption of a typical residence to develop an alternative energy solution. This course is intended for students that are contemplating a career in the alternative energy industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **AET 072**

##### **Photovoltaic Systems Design and Installation (Same as ET 072)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This is an introductory course that will examine and implement the design and installation of solar photovoltaic power systems which will include the installation of a working solar photovoltaic power system. Students will learn how to perform solar site evaluations, electrical load calculations, solar system size calculations, and installation techniques for grid-tie and off-the-grid photovoltaic systems. This course is approved by the North American Board of Certified Energy Practitioners (NABCEP) and the students can take the optional Photovoltaic Systems Entry Level Certification exam as part of the course. This course is intended for students that are contemplating a career in the solar photovoltaic energy industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AET 074**  
**Advanced Photovoltaic Systems Design and Installation (Same as ET 074)**

*Prerequisite:* AET/ET 072  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is the second course in the photovoltaic series that will further examine and implement the design and installation of solar photovoltaic power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning photovoltaic installations. The topics include code compliant wiring of modules, inverters, charge controllers, batteries, grounding techniques and related topics. Additional topics include the design and installation of large commercial photovoltaic systems. This course is intended for students that are interested in a career in the solar photovoltaic energy industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AET 076**  
**Wind Energy Systems Design and Installation (Same as ET 076)**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is an introductory course that will examine and implement the design and installation of wind power systems which will include the installation of a working wind generation power system. Students will learn how to perform wind site evaluations, electrical load calculations, wind system size calculations, hydraulics fundamentals, basic aerodynamics, and installation techniques for wind power generation systems. Students will learn how to design and install wind power generation system and obtain skills for employment. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AET 078**  
**Advanced Wind Energy Systems Design and Installation (Same as ET 078)**

*Prerequisite:* AET/ET 076  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is the second course in the wind energy series that will further examine and implement the design and installation of wind power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning wind power installations. The topics include code compliant wiring of modules, inverters, charge controllers, grounding techniques and related topics. Additional topics include wind site evaluations, electrical load calculations,

wind system size calculations, hydraulic fundamentals, basic aerodynamics, and installation techniques for large wind power generation systems. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AET 181**  
**Home Energy Management and Auditing (Same as ET 181)**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment  
*Transfers to:* CSU

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of home energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive home energy audit and energy management program. Emphasis is placed on the following topics: Appliances, Insulation, Designing/Remodeling, Electricity, Landscaping, Lighting, Space Heating and Cooling, Water Heating, Doors/Windows/Skylights, and Home Energy Audits.

**3 Units**  
**54 Lecture hours**

**AET 182**  
**Industrial Energy Management and Auditing (Same as ET 182)**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment  
*Transfers to:* CSU

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of the industrial energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive energy audit and energy management program. Emphasis is placed on the following topics: Types of Energy Audits, Energy Management and Cost, Benchmarking, Energy Performance, Energy Use Requirements, Maximizing System Efficiencies, Optimizing Energy Input Requirements, Fuel and Energy Substitution and Energy Audit Instruments.

**3 Units**  
**54 Lecture hours**

**AET 280**  
**Green Building Design Principles (Same as ET 280)**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment  
*Transfers to:* CSU

This course is designed to provide individuals, who are working in or seeking employment in the green building field, with an overview of the green building industry and its

components. Specifically, this course will assist students in their preparation for the Leadership in Energy and Environmental Design Accredited Professional (LEED AP) Examination, which is the most recognized professional accreditation for green building in the nation. Emphasis is placed on the six categories of design that green buildings must address for LEED Certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Each of these categories will be studied, with a focus on the significance of each particular credit.

**3 Units**  
**54 Lecture hours**

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## ANIMATION

### Division of Communication & Languages

**ANIM 101**  
**Digital Modeling and Texturing**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment  
*Transfers to:* CSU

This course introduces students to digital 3-D modeling and texturing. Students will learn the basic techniques used to create digital 3D models of organic and manmade objects, used in film, TV, game development and design visualization. This course is appropriate and beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design and Film Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design). Students will be introduced to the concepts of digital sculpting, box modeling low and high resolution models, UV projecting, image based and procedurally texturing 3-D objects.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ANIM 105**  
**Principles of Animation**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; ART 130; ART 230

*Transfers to:* CSU

This course introduces students to the basic principles that are the foundation for the art form of animation. The topics covered in this course are the starting point for any student interested in becoming a digital animator. Through the use of a computer, solid drawing and 3D software such as Maya, students will learn to master fundamentals like squash and stretch, timing, weight, drag and follow through. This course provides students with the opportunity to build and refine the basic skill set necessary to be a digital animator.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ANIM 110**  
**Digital Character Animation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ANIM 105*

*Transfers to: CSU*

This course will provide students with an opportunity to further develop their skills in the art of creating three-dimensional digital character animation. Students will learn how to create short animation sequences and loops using digital characters. This course is appropriate and beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design and Broadcast Media Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design). Students will be introduced to the concepts of storyboarding, Body Mechanics, acting for animators, Pose to pose and straight ahead animation, control rigging, and animating mechanical subject matter.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ANIM 120**

**3D Materials, Lighting and Rendering**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ANIM 101*

*Transfers to: CSU*

This is an introductory course for all students interested in learning about texture mapping, lighting and rendering for computer animation. The focus of the course is on creating procedural and image based textures, generating lighting scenarios for human and man-made objects and rendering methods. Students will learn techniques used in the production of surfaces for models of people, animals and scenes as used for games, animation and design visualization. This course is beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design and Film Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design).

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ANIM 130**

**World Building for Game Development**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ANIM 101*

*Transfers to: CSU*

This is an introductory course in the techniques used in building worlds for game development. There will be an emphasis placed on the essentials of traditional background layout, such as thumbnail sketching, perspective, basic design and mood. Students will have the opportunity to study in depth the procedures used in lighting and texturing game environments. Topics will include the

use of color, lighting, and the design of environmental elements used to enhance basic game play and level design. This course is beneficial for all students in courses related to Graphic Arts (Multimedia, Illustration, Internet Web Design, Game Design and Film Production) and Industrial Design (Architectural, Automotive, Furniture, Clothing and Product Design).

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ANIM 140**

**Animation Portfolio**

*Prerequisite: ANIM 101; ANIM 110; ANIM 120*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment*

*Transfers to: CSU*

Students will select a specific area of design that they research and center a portfolio project around. The emphasis in this class is placed on helping the student improve the artistic merit of their work. The topics covered will help prepare digital artists to talk about and present their artwork in a professional manner. Students will create a digital portfolio for the web and print using programs such as Adobe Photoshop, Premiere, ZBrush, Autodesk Maya and the Unity game engine. This course is an excellent opportunity for students who are interested in developing and presenting a collection of work that will help them take the next step in their professional or academic career as a traditional/digital artist.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ANIM 260**

**Figure Drawing for Animators**

*Prerequisite: ART 230*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

A figure drawing course for animators that focuses on gesture and how to capture the essential movement, dynamic expression, and the individual attitude of the model.

This course is designed to introduce and develop an understanding of life drawing that will serve as a foundation for further studies in animation and entertainment arts. Students will refine basic skills in human anatomy while learning to draw the figure in sequential movement, understand weight and balance, facial and body expression, and figure invention.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

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## ANTHROPOLOGY

### Division of Behavioral & Social Sciences

**ANTH 101**

**Introduction to Physical Anthropology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU*

*(\*Students will receive credit from UC for only one of the following courses: ANTH 101 or ANTH 101H)*

In this course, people are investigated from the perspective of evolutionary theory. Students will learn about the process of natural selection and related issues including patterns of inheritance. Also included will be an examination of the closest living relatives to humans, primates, with an emphasis on behavior and ape societies. An extensive survey of human ancestors will trace the origins of various life forms and recount how ape-like creatures evolved into modern humans. Students will also discover how natural selection can be used as a tool to understand patterns of human variation. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of humans from an evolutionary perspective.

**3 Units**

**54 Lecture hours**

**ANTH 101H**

**Introduction to Physical Anthropology**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU*

*(\*Students will receive credit from UC for only one of the following courses: ANTH 101 or ANTH 101H)*

In this course, people are investigated from the perspective of evolutionary theory. Students will learn about the process of natural selection and related issues including patterns of inheritance. Also included will be an examination of the closest living relatives to humans, primates, with an emphasis on behavior and ape societies. An extensive survey of human ancestors will trace the origins of various life forms and recount how ape-like creatures evolved into modern humans. Students will also discover how natural selection can be used as a tool to understand patterns of human variation. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of humans from an evolutionary perspective.

**3 Units**

**54 Lecture hours**

**ANTH 101L****Physical Anthropology Lab**

*Prerequisite/Corequisite: ANTH 101 or ANTH 101H*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This laboratory course, designed to complement the lecture course, is for students interested in expanding their knowledge of physical anthropology. Students will be introduced to the methods, techniques, and procedures used in physical anthropology research, gaining practical experience by participating in laboratory activities and experiments employing the scientific method. Laboratory exercises will include an assessment of the forces that affect evolutionary change, the observation of primate behavior, the assessment of human variation, and the identification and classification of the skeletal features of humans, non-human primates, and human ancestors. Also included will be an exploration of Mendelian, molecular, and population genetics.

**1 Unit**

**54 Lab hours**

**ANTH 102****Introduction to Cultural Anthropology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

The emphasis of this general education course is the investigation of human culture. By learning about the diversity of cultural practices around the world, students will be able to evaluate their identities within their own societies. In addition to discovering the theories and methods important to cultural anthropology, the course will include an extensive examination of cross-cultural diversity. Students will learn about how people in different cultures obtain their food, exchange goods, organize themselves in groups, engage in politics, raise children, and worship supernatural beings. Also addressed will be the issue of how cultural anthropology can contribute to addressing problems important in the modern world. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of human culture.

**3 Units**

**54 Lecture hours**

**ANTH 102H****Introduction to Cultural Anthropology**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

The emphasis of this general education course is the investigation of human culture. By learning about the diversity of cultural practices around the world, students will be able to evaluate their identities within their own societies. In addition to

discovering the theories and methods important to cultural anthropology, the course will include an extensive examination of cross-cultural diversity. Students will learn about how people in different cultures obtain their food, exchange goods, organize themselves in groups, engage in politics, raise children, and worship supernatural beings. Also addressed will be the issue of how cultural anthropology can contribute to addressing problems important in the modern world. This course is designed for anthropology majors, those with an interest in anthropology, or anyone with a desire to further their understanding of human culture.

**3 Units**

**54 Lecture hours**

**ANTH 103****Introduction to Archaeology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

Archaeology is the study of past societies through the analysis of material remains. This general education course will survey the development of major cultural centers around the world including those found in Mesoamerica, South America, Egypt, China, Africa, and the Middle East. Examples drawn from many ancient sites will trace human societies from pre-agricultural communities, through the origins of agriculture, to the rise of major political and economic institutions. Students will learn how archaeologists discover information about the past, the history of the discipline, and the important issues confronting the field today. This course is designed for students who are interested in the field of archaeology or for students who plan to major in anthropology.

**3 Units**

**54 Lecture hours**

**ANTH 110****Human Sexuality from a Cross-Cultural Perspective (Same as SOC 110)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed to provide the student who has an interest in human sexuality with an introduction to this subject as a form of culturally-influenced social interaction. Topics addressed include historical views of sexuality, gender identity, and the impact of cultural change on sexual interest and activity. A social scientific analysis of various aspects of human sexual behavior will be used to examine sexuality as a form of social interaction in a cultural context. Various social theories and relevant empirical research are critically analyzed from both a Western and non-Western perspective.

**3 Units**

**54 Lecture hours**

**ANTH 115****Introduction to Medical Anthropology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

Medical anthropology explores the perceptions of disease, health, and healing in different cultures around the world. Socio-cultural, biological, and ecological perspectives will be used to understand the origins of illness and disease and medical practices across cultures. Topics include diagnosis and therapies, the role of healers like witchdoctors and shaman, stress and mental health, unequal access to medical care, and medical anthropology applied to global health problems. This course is intended for nursing and health care professionals seeking continuing education credit and students interested in the cultural aspects of healing and treating disease.

**3 Units**

**54 Lecture hours**

**ANTH 125****Religion, Magic, Witchcraft, and the Supernatural**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for students interested in learning about the diverse religious beliefs and practices around the world. An introduction to the anthropological study of religion will include an overview of the various forms of religious belief systems, the variety of gods and other supernatural forces, the use of myths, rituals, and ceremonies in religious practice, and the types of shamans, priests, and other religious specialists found in religious systems. The religious use of drugs will be explored along with traditional healing practices and folk medicine remedies used in many Western cultures. A survey of witchcraft, sorcery, the occult, demons, exorcism rites, sacrificial practices, and magic will be included. In addition, concepts relating to death and the afterlife will be explored such as souls, ghosts, reincarnation, zombies, and others.

**3 Units**

**54 Lecture hours**

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**ARCHITECTURE**

**Division of Career & Technical Education**

**ARCH 095****Construction Document Reading and Estimating**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is beneficial for apprentices, students of architecture and employees in all

areas of the construction industry, and covers residential, light commercial and industrial building construction. An introduction to the use of prints, construction documents and the theory of construction estimating, as used in the building industry will be presented. Principles of reading working drawings, plans, H.V.A.C. specifications, details, elevations and electrical specifications are included as well as material estimating, estimating rules, tables and procedures.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**ARCH 115**  
**Introduction to Residential Architecture: Drawing and Design**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting*  
*Transfers to: CSU*

This introductory course is for any student interested in the field of Architectural Drawing and Design. The course is a requirement for both the A.S. degree and certificate in Architectural Design and Drawing, Engineering Design Drafting and Civil Design Technology. The course includes the study of architectural graphic standards related to creating construction drawings such as floor plans, exterior and interior elevations, site plans, foundation plans and details, building sections and construction framing details for one or two story residential structure. Emphasis is placed on symbology, conventions, and techniques to develop technical skills necessary for an entry level architectural drafter and may lead to careers in environmental planning and design, architectural engineering, and construction technology. Construction methods, building codes, design factors, planning, and use of reference materials are discussed and applied. All construction documents will be developed using traditional board drafting methods and standards.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ARCH 125**  
**Residential Architecture and Detailing**

*Prerequisite: ARCH 115, ENGT 150 or ENGT 170, or industry experience in CADD applications*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This intermediate level course is for students pursuing a degree

or certificate in Architectural Design and Drawing and is a requirement for both the A.S. degree and certificate. This course involves creating a set of construction drawings for a two story structure and emphasizes the study of wall and construction systems, foundation systems, detailing of wood and concrete systems, sections, interior details, and completion of the residential construction documents. Emphasis is placed on development of technical skills in detailing, use of reference materials, building codes, standard construction techniques and architectural graphic standards. All construction documents will be developed using CADD.

**3 Units**  
**45 Lecture hours**  
**54 Lab hours**

**ARCH 215**  
**Architectural Perspective and Rendering**

*Prerequisite: ARCH 115*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 105*  
*Transfers to: CSU*

This course is for all students interested in developing skills in architectural perspective drawing and is a requirement for both the Architecture and Architecture Design and Drawing A.S. degrees. The students will be introduced to the theory of and practical application of perspective drawing and rendering as used in architecture. Topics include one, two, and three point perspectives, entourage, and introduction to rendering techniques, such as water color, markers, film, pastels, pencil, pen and ink. Presentation techniques will also be discussed.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ARCH 225**  
**Commercial Wood and Masonry Design and Construction**

*Prerequisite: ARCH 115 and (ENGT 150 or ENGT 170)*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment, READ 023 or appropriate assessment, and/ or industry experience in CADD applications*  
*Transfers to: CSU*

This advanced level course is for students pursuing an A.S. Degree or Certificate in Architecture and Architectural Design and Drawing. The course includes the study of construction methods, building ordinances and codes. As a component of the course students will complete construction documents for concrete block, steel

and wood commercial buildings and retail space. Emphasis is placed on effective space utilization, technical plans, elevations, aesthetics, handicap requirements, site utilization and development, traffic flow, landscape, foundation design and construction details. All construction documents will be developed using CADD.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ARCH 235**  
**Architectural Design Studio**

*Prerequisite: ARCH 215*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 150*  
*Transfers to: UC, CSU*

This course is for students pursuing the A.S. degree in Architecture with the intent of transferring and continuing their study of architecture. Topics explored include multiple design principles, concept applications, spatial and form definition, preliminary studies, interior and exterior space planning, site orientation, styles and materials. Student design concepts will be expressed verbally and graphically using presentation drawings, isometrics and perspectives, conceptual models, renderings and photographs. Students will develop skills in a studio atmosphere dealing with existing conditions, problem solving using design criteria, codes and environmental relationships for abstract, residential and small commercial structures.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ARCH 236**  
**Architecture Design Studio II**

*Prerequisite: ARCH 235*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This second level Design Studio course builds upon the foundation of architectural design studio ARCH 235. This course presents additional design approaches to spatial and form definition of architectural program, urban and site planning, topographic, civil and environmental issues. Architectural design proposals and projects will be expressed verbally and graphically using presentation drawings, conceptual models, renderings and photographs. Students will enhance their design skills in a studio atmosphere, working to justify their design solutions.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ARCH 260**  
**Advanced Architecture Using Revit and 3D Software**

*Prerequisite:* ARCH 115; ENGT 150  
*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting; ENGT 200

*Transfers to:* CSU

This course is for all students pursuing an A.S. Degree in Architecture (Transfer) and Architectural Design and Drawing and presents an intensive study of BIM (Building Information Modeling) applications as they relate to architecture. Utilizing the latest releases of 3D design software such as Revit and AutoCAD Architecture and previously learned technical and architectural drafting conventions, students will produce two and three dimensional BIM generated architectural drawings and 3D virtual models. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ARCH 261**  
**Revit for Advanced BIM Architectural, Structural and MEP Applications**

*Prerequisite:* ARCH 260  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

Advanced BIM (Building Information Modeling) applications extends the fundamentals of the Arch 260 class to include Structural, Mechanical, Electrical and Plumbing extensions of the Autodesk Revit Building software. Students will work on both group and individual projects to create and present three-dimensional representation of architectural solutions. Students will also learn the basic process and workflow in creation of Revit Families for use in building models. Course may be counted once towards the major and repeated three times to enhance student's skills and proficiency levels, or repeated due to content change or software updates.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ARCH 280**  
**Advanced MicroStation for CADD & BIM Applications (Same as ENGT 280)**

*Prerequisite:* ENGT 170 with a grade of "C" or better, or verifiable work experience and proficiency in MicroStation XM or V8i

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting

*Transfers to:* CSU

This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students studying Architecture, Civil Engineering, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ARCH 290**  
**Cooperative Work Experience/ Internship for Architecture Related Fields**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of architecture and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

1 Unit/60 hours; 2 Units/120 hours;

3 Units/180 hours; 4 Units/240 hours

**Student Paid Internship:**

1 Unit/75 hours; 2 Units/150 hours;

3 Units/225 hours; 4 Units/300 hours

**1 to 4 Units**

**3 Lecture hours**

**60 to 300 hours**

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## ART

### Division of Arts & Cultural Programs

**ART 101**  
**Introduction to Art**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

*Transfers to:* UC, CSU

This lecture/lab course provides the non-art majors an opportunity to learn about art through a series of hands-on projects within an art historical and conceptual framework. Project and topics include drawing, painting, printmaking, design, mixed media and sculpture.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 104**  
**Art of the Ancient Americas**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC, CSU

Art 104 is a study of the indigenous arts of Mexico, Andean South America, and Central America, from civilizations including the Olmec, Maya, Aztec, Inca, Moche, Chavin de Huantar, and Nazca. Art of representative native tribes of the territory now encompassed by the United States and Canada will be comparatively examined. Works of art and architecture will be presented in relation to the various religious beliefs, political/ economic systems, and cultural practices of the ancient Americas. Art historical and archaeological methodologies relating to the understanding and interpretation of non-Western art will be discussed. This course is appropriate for students pursuing a degree in Art, students with an interest in American Studies and Latin American Studies.

**3 Units**

**54 Lecture hours**

**ART 105**  
**Survey of Western Art: Prehistory through the Middle Ages**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ART 105 or ART 105H)

This course presents a broad overview of Prehistoric, Mesopotamian, Egyptian, Greek, Etruscan, Roman, Early Christian, Islamic, and Medieval art and architecture. This course is appropriate for all students pursuing the degree in Studio Art or Art History or seeking to fulfill general education requirements in Fine Arts and Humanities.

**3 Units**

**54 Lecture hours**

**ART 105H**  
**Survey of Western Art: Prehistory through the Middle Ages**

*Prerequisite: ENGL 101 with a "C" or better and a minimum GPA of 3.2*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ART 105 or ART 105H)*

This course presents a broad overview of Prehistoric, Mesopotamian, Egyptian, Greek, Etruscan, Roman, Early Christian, Islamic, and Medieval art and architecture. This course is appropriate for all students pursuing the degree in Studio Art and/or seeking to fulfill general education requirements in Fine Arts and Humanities. This course is designed for those who meet Honors Program Requirements.

**3 Units**  
**54 Lecture hours**

**ART 106**  
**Survey of Western Art: Renaissance to Modern**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ART 106 or ART 106H)*

This course provides an overview of the history of Western art from the 14th century through the Modern Era, including Renaissance, Baroque, Rococo, Neoclassicism, Romanticism, Realism, Early Photography, Impressionism, Post Impressionism, and early Modern art movements of the 20th century. This course is appropriate for all students pursuing the degree in Art and/or seeking to fulfill general education requirements in Fine Arts and Humanities.

**3 Units**  
**54 Lecture hours**

**ART 106H**  
**Survey of Western Art: Renaissance to Modern**

*Prerequisite: ENGL 101 with a "C" or better and a minimum GPA 3.2*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ART 106 or ART 106H)*

This course provides an overview of the history of Western art from the 14th century through the Modern Era, including Renaissance, Baroque, Rococo, Neoclassicism, Romanticism, Realism, Early Photography, Impressionism, Post Impressionism, and early Modern art movements of the 20th century. This course is appropriate for all students pursuing the degree in Art and/or seeking to fulfill general education requirements in Fine Arts and Humanities. This course is intended for those who meet Honors Program Requirements.

**3 Units**  
**54 Lecture hours**

**ART 107**  
**The Art of Asia**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines the artistic traditions of Prehistoric to Modern Asia in relation to their cultural, philosophical, and religious influences. The art and architecture of Central Asia (India, China, Korea, and Japan) will be emphasized. Examples from Southeast Asia, Pakistan, Tibet, and Nepal will also be discussed. This course is appropriate for all students interested in art and culture and for those seeking to fulfill general education requirements for Fine Arts and Humanities, as well as all Studio Art majors.

**3 Units**  
**54 Lecture hours**

**ART 108**  
**The Art of Mexico**

*Advisory: READ 023 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of the art and architecture of Mexico including PreColumbian, Viceregal (Colonial) and Modern 19th and 20th centuries. Chicano/a art will also be examined in relation to its Mexican antecedents. Art 108 is appropriate for all students interested in art and culture and for those seeking to fulfill general education requirements in Fine Arts and Humanities, as well as all Studio Art majors and Art History majors.

**3 Units**  
**54 Lecture hours**

**ART 109**  
**Art of the Americas: Colonial to the Present**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course includes a study of the art and architecture of North, Central, and South America from the colonial period to the early 20th Century. This course is appropriate for students with an interest in American Studies, Latin American Studies, and/or those seeking to fulfill the general education requirements in Fine Arts and Humanities.

**3 Units**  
**54 Lecture hours**

**ART 110**  
**Understanding Visual Art**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

ART 110 is a lecture course that provides the student with an introduction to the study of visual art: its vocabulary, its forms, the many roles it plays in society, and the variety of processes artists master in its making. Students gain insight into current approaches used in interpreting meaning from art and explore questions about the ways in which value is assigned to the art object. Using examples from cultures

around the world and across time, this course offers a broad overview to any student interested in art and culture and to those seeking to fulfill general education requirements in Fine Arts and Humanities.

**3 Units**  
**54 Lecture hours**

**ART 112**  
**Visual Art in the Modern Era**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

ART 112 is a survey of developments in art and architecture from the early 19th century through the 20th century and into the 21st. From Realism and Early Photograph through Postmodern and Contemporary art, visual art movements will be discussed in relation to stylistic trends, philosophical influences, innovations in technology, and other historical and social contexts. The roles played by artist, critic, and consumer in shaping these movements will be examined, as well as visual art's impact upon society in the Modern Era. This course is appropriate for all students interested in art and culture and for those seeking to fulfill general education requirements in Fine Arts and Humanities, as well as for Studio Art majors.

**3 Units**  
**54 Lecture hours**

**ART 113**  
**The History of Photography**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This lecture course examines the history of photography from its invention in the 1830s to the present. The technological development, social role, and aesthetic possibilities of photography will be discussed in relation to major historical, art historical, cultural, and political influences. This course is appropriate for all students interested in photography, art, and art history and culture and for those seeking to fulfill the general education requirement for Fine Arts and Humanities, as well as Studio Art majors and Art History majors.

**3 Units**  
**54 Lecture hours**

**ART 115**  
**The Art of Film**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This introductory course explores film as an art form, its basic components, and its relation to the styles and movements of other visual arts forms. An understanding of cinematic language is emphasized by focusing upon film's manipulation of time and space, its use of visual metaphors, montages, and explicit/implicit messages. The collaborative nature of filmmaking is studied by examining the role of cinematography, lighting, film editing,

visual effects, art direction, and the use of sound and music to enhance the script and create style. Through discussion and written assignments, students develop the ability to analyze the impact of films viewed both in and out of class. This course is appropriate for any student interested in film, art, media studies, or culture.

**3 Units**  
**54 Lecture hours**

**ART 120**  
**Two Dimensional Design**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a foundational, first semester course and is open to any student interested in the fundamentals of visual thinking as they apply to all visual media and fulfills a general education requirement in Art. This course provides an introduction to the concepts, applications, and art historical references related to two-dimensional art and composition, and includes the study of the basic elements of line, shape, texture, value, color and spatial illusion. Students will develop a visual vocabulary for creative expression through lecture presentations, studio projects, and written assignments.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 121**  
**Three Dimensional Design**

*Advisory: READ 022 or appropriate assessment; ART 120*  
*Transfers to: UC, CSU*

This is a first semester course for art and non-art majors. It is an introduction to the concepts, applications, and historical references related to three-dimensional form in visual art and design. Exploration of the expressive potential and conceptual possibilities of three-dimensional forms through lecture, slide and video presentations, and studio projects using a variety of tools, materials, and techniques.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 130**  
**Freehand Drawing I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a first semester course for art and non-art majors interested in developing basic drawing skills. As an introduction to observational drawing and composition, students will develop the ability to perceive and define shape, contour, volume, space, and light using a variety of drawing media and subject matter. Emphasis is on clarity of observation and the ability to order and translate 3-dimensional form and space into 2-dimensional drawings.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 131**  
**Freehand Drawing II**

*Prerequisite: ART 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a second semester course for art and non-art majors in observational drawing and composition, stressing an advanced ability to perceive and define shape, contour, volume, space, and light. Students will use a variety of drawing media and subject matter. Emphasis is on strengthening skills introduced in Freehand Drawing I, the exploration of color in drawing and concepts related to content.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 135**  
**Beginning Painting**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ART 130*  
*Transfers to: UC, CSU*

This is a first semester course for art and non-art majors interested in developing basic painting skills. The course explores both traditional and contemporary painting techniques while stressing an ability to perceive and define shape, contour, volume, texture, space, and light using acrylic or water-based oil painting media. Emphasis is on learning the techniques of painting, understanding the use of color, while strengthening observation and rendering skills. Students are advised to have some drawing skills before taking this class.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 136**  
**Intermediate Painting**

*Prerequisite: ART 130; ART 135*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a second semester course for art and non-art majors interested in further development of painting skills and techniques, understanding the use of color and space, while strengthening observation and rendering skills. The course explores both traditional and contemporary painting concepts, styles, and techniques that involve complex compositional and technical problems in either acrylic or oil painting media.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 140**  
**Ceramics I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an introductory course open to all art and non-art majors interested in learning basic skills in ceramics using the potter's wheel. Students will develop a visual vocabulary for

creative expression through lectures, power point, vocabulary lists and video presentations. This course covers beginning problems of centering, throwing and shaping various functional and non-functional pottery. Students will be introduced to the process of glazing and basic firing techniques. This course emphasizes exploring personal and cultural expression in the ceramic media. Evaluation will be based on using a variety of tools and writing assignments.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 141**  
**Ceramics II**

*Prerequisite: ART 140*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an intermediate course in ceramics open to all art and non-art majors, with continued emphasis on basic skills using the potter's wheel. Included in the course will be intermediate problems on the wheel, basic decorative techniques, and making a test glaze. Students will be exploring contemporary artistic practice and the social and historical elements of ceramic art.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 142**  
**Introduction to Ceramic Handbuilding**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a first semester course for art and non-art majors. It is designed to introduce students to the concepts, techniques, history, and contemporary practices of handbuilding in the ceramics arts. This course can be taken once and repeated three times for credit. This class is for any student who is interested in the fundamentals of clay construction using hand-building technique.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 150**  
**Beginning Printmaking**

*Prerequisite: ART 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This is a first semester course for the art and non-art major in the study of basic intaglio and relief fine art printmaking processes. The course will introduce students to wood and linoleum cut, drypoint and etching printing techniques while stressing creativity and expression.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ART 151**  
**Intermediate Printmaking**

*Prerequisite:* ART 150

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This is a second semester course for the art and non-art major in the continued study of intaglio and relief fine art printmaking processes. This course will expand upon techniques and skills students learned in Beginning Printmaking, ART 150 including color printing techniques as well as serigraph printing. While stressing creativity and expression students will also learn the practice of creating an edition.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 160**  
**Rendering and Illustration**

*Advisory:* READ 022 or appropriate assessment; ART 130

*Transfers to:* CSU

Intended for the student interested in developing skills in rendering and illustration, this course is a beginning course in illustration and rendering exploring both traditional and contemporary drawing techniques, stressing an ability to perceive and define shape, contour, volume, texture, space, and light both realistically as well as expressively using various media. Emphasis is on learning the techniques of illustration, understanding the use of color, while strengthening observation and rendering skills.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 161**  
**Advanced Rendering and Illustration**

*Prerequisite:* ART 160

*Advisory:* READ 022 or appropriate assessment; ART 130

*Transfers to:* CSU

Intended for the student interested in developing skills in rendering and illustration, this course is an advanced course in illustration and rendering exploring both traditional and contemporary drawing techniques while stressing an ability to perceive and define shape, contour, volume, texture, space, and light both realistically as well as expressively using various media. Emphasis is on learning the advanced techniques of illustration, understanding the use of color, while strengthening observation and rendering skills.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 164**  
**Graphic Design (Adobe Illustrator)**

*Advisory:* READ 022 or appropriate assessment; ART 120

*Transfers to:* CSU

Designed for the student interested in a degree in commercial art or those interested in 2 dimensional design and layout applications employed as tools by computer graphic artists, this course is an exploration of graphic design

using the Adobe Illustrator computer based design software. Topics include typography usage, inclusion of photo-derived images, illustration techniques, page layout design, as well as current methods/styles employed by graphic artists. This course includes portfolio building with an emphasis on professional standards.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 165**  
**Graphic Design (Advanced Adobe Illustrator)**

*Prerequisite:* ART 164

*Advisory:* READ 022 or appropriate assessment; ART 120

*Transfers to:* CSU

Intended for the student interested in a degree in commercial art or those interested in 2 dimensional design and layout applications employed as tools by computer graphic artists, this course is an advanced exploration of graphic design using the Adobe Illustrator computer based design software. Topics include concept driven projects exploring illustration and rendering techniques, advanced compositing methods using various sources, as well as current methods/styles employed by graphic artists. This course includes portfolio building with an emphasis on professional standards.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 167**  
**Lettering**

*Advisory:* READ 022 or appropriate assessment

*Transfers to:* CSU

This course is an exploration of typography through visuals, layouts and comprehensive to finished camera-ready work. It includes lettering, graphics and current methods employed by typographers and advertising artists.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

**ART 168**  
**Lettering**

*Prerequisite:* ART 167

*Transfers to:* CSU

This course is an exploration of advanced problems in the application of typography through visuals, layouts and comprehensive to finished camera ready work. It includes lettering, graphics and current advanced methods employed by typographers and advertising artists. Includes an introduction to computer-assisted design and page layout with emphasis on professional standards.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

**ART 169**  
**New Forms**

*Advisory:* ART 120

*Transfers to:* UC, CSU

This course focuses on contemporary methods and directions of art production. Included in the course will be the production and assessment of various

interdisciplinary and alternative methods of art making such as mixed media approaches, performance, installation, text and image, and public art. Particular attention will be paid to the social and political aspects of art production and presentation.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 172**  
**Desk Top Publishing (Adobe InDesign)**

*Advisory:* READ 022 or appropriate assessment

*Transfers to:* CSU

This course is intended for the student interested in commercial art, focusing on computer generated multi page layouts. Page composition and graphics are explored using Adobe InDesign software with an emphasis on design and the creative use of typography, included in this course is a discussion of output possibilities and pre-press considerations.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 175**  
**Computer Graphics**

*Advisory:* READ 022 or appropriate assessment

*Transfers to:* CSU

This course is for the student interested in a degree in commercial art or any student interested in 2 dimensional paint and 3 dimensional modeling applications employed as tools by computer graphic artists. Topics covered will include the exploration of basic paint techniques as well as basic modeling, mapping, rendering and animation techniques as they relate to page and web design.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 177**  
**Computer Animation for the Macintosh**

*Prerequisite:* ART 175

*Transfers to:* CSU

This course focuses on the use of the Macintosh computer as a design aid to generate computer animated two-dimensional and three dimensional images, including project development from story board to finished video tape output.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

**ART 178**  
**Introduction to Digital Imaging (Adobe Photoshop)**

*Advisory:* READ 022 or appropriate assessment; ART 120

*Transfers to:* CSU

This course is for the student interested in a degree in commercial art or any student interested in digital imaging. The focus of the course is computer based image-editing software and its use as a tool in the creation of high quality digital imagery. Also provided is an overview of programs such as Adobe Photoshop and other related graphics programs employed by digital

imaging artists with an emphasis on photography as the primary source of the final images. Included in this course will be the discussion of aesthetic decisions as they relate to image composition. The ethical and legal implications of image manipulation will be discussed as well as various presentation possibilities.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 179**

##### **Computer Graphics for Non-Art Majors**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides non-art majors the opportunity to explore the basic concepts of art including two and three dimensional design principles, through the use of computers. Students will also be introduced to various types of computer graphics software and explore how this technology impacts our culture.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

#### **ART 180**

##### **Art Gallery Display Design**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is appropriate for all students interested in art, art exhibitions, museum studies, and cultural studies and is a combination studio and lecture course that provides students with creative experience in exhibition design and gallery installation. Topics include exhibition space planning, principles of color and design, art exhibition construction and lighting, and proper care and handling of art objects. Students are also given an introduction to the basic principles of art curating and gallery management. This course may be taken once and repeated three times for credit.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

#### **ART 185**

##### **Art Studio**

*Transfers to: UC, CSU*

This course is designed to provide supervised studio study on an individual basis with various projects. Arranged: 4 hours lab. Offered on a pass-no pass basis.

**1 Unit**  
**72 Lab hours**

#### **ART 230**

##### **Beginning Life Drawing**

*Prerequisite: ART 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a first semester course for art, animation, and non-art majors interested in developing the basic drawing skills of representing the human figure. As an introduction to observational

figure drawing and composition, students will develop the ability to perceive and define the anatomy and structural organization of the human form in terms of expressive design and creative use of drawing media.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 231**

##### **Intermediate Life Drawing**

*Prerequisite: ART 230*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a second semester course for art, animation, and non-art majors interested in furthering their figure drawing skills. Working from a professional figure model, students will refine those skills learned in ART 230 and learn intermediate drawing skills, study human anatomy in greater detail, and extend their knowledge regarding the use of the figure in visual art. Emphasis is on clarity of observation and the ability to order and translate form and space on a two dimensional surface.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 232**

##### **Advanced Life Drawing**

*Prerequisite: ART 231 or ANIM 260*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a third semester course for art, animation, and non-art majors interested in furthering their figure drawing skills. Students will refine those skills learned in ART 231 or ANIM 260 and learn advanced drawing skills, study the human anatomy in greater detail, and extend their knowledge regarding the use of the figure in visual art.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 233**

##### **Freehand Drawing III**

*Prerequisite: ART 131*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a third semester course in drawing and composition. More complex problems and a broader range of media including color will be utilized. Emphasis is on advancing observational skills and conceptual development through a range of subject matter, technical refinement and thematic development. Exploration of individual creative interpretation, process and intent in order to deepen the student's studio practice and investigation is stressed.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 234**

##### **Watercolor Painting**

*Prerequisite: ART 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is an introduction to various transparent watercolor techniques including wash and glazing. Applications of drawing, beginning painting, and design fundamentals to these techniques are included as well as the communicative element of content.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 235**

##### **Advanced Painting I**

*Prerequisite: ART 136*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a third semester course in painting for the art and non-art major. The course constitutes a study of advanced painting problems stressing experimentation with traditional and contemporary methods of painting, composition, and expression. Class and individual projects using figure, still life, landscape, abstraction, shaped format, altered scale and material exploitation will be stressed.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 236**

##### **Advanced Painting II**

*Prerequisite: ART 235*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a fourth semester course in painting for the art and non-art major. This course explores experimentation with traditional and contemporary methods of painting using the figure, still life, landscape, abstraction and non-objective imagery with an emphasis on continuing skill development and problem solving of interpretation, expression and conceptual issues in painting.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 242**

##### **Advanced Ceramics**

*Prerequisite: ART 141*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an advanced course in ceramics, open to all art and non-art majors. This class places a special emphasis on personal growth and aesthetics as well as increased proficiency on the potter's wheel. Students will investigate the concepts of management and expressive exploration of the unique characteristics of fired ceramics – both the opportunities and constraints presented in the processing of clay from a soft, plastic, fragile,

impermanent substance into a hard, rigid, and completely metamorphosed material after drying and firing. It is a process that requires sensitivity to time and sequence, and demands critical informed technical management. An important aspect of the class will be having students evaluate their selection of type of clay, decorative techniques and final-firing process to achieve their desired finished results. Included in this course will be advanced problems-solving in forms, shapes, decorative techniques and glazing.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 252** **Advanced Printmaking**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This is a third semester course for the art and non-art major in the continued study of intaglio and relief fine art printmaking processes. This course will expand upon techniques and skills students learned in Intermediate Printmaking, ART 151. Students will improve printing skills enhanced by supervised repetition and practice within class periods. Course content differs each time it is offered so it may be taken once and repeated three times for credit.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

#### **ART 290** **Cooperative Work Experience/Internship for Visual Arts Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business, industrial, studio, non-profit and professional art organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of visual arts and have

completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class.

"Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours

**Student Paid Internship:**  
1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

#### **ART 299** **Directed Study: Art**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## **ASTRONOMY**

### **Division of Mathematics & Sciences**

#### **ASTR 110** **General Astronomy**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ASTR 110 or ASTR 110H)*

This is a descriptive nonmathematical course designed to develop an appreciation of astronomy and a broad cosmic perspective. The emphasis of the course is on the current state of knowledge of our solar system, our galaxy, and the universe. Topics on the frontier of astronomical knowledge such as black holes and the search for extraterrestrial life will be explored. This course is designed for those with an interest in astronomy or anyone who desires to expand their cosmic horizons.

**3 Units**  
**54 Lecture hours**

#### **ASTR 110H** **General Astronomy**

*Prerequisite: Satisfactory completion (C or better) of ENGL 101. Minimum GPA 3.0*

*Advisory: ENGL 030 or ENLA 034 or*

*appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ASTR 110 or ASTR 110H)*

This is a descriptive nonmathematical course designed to develop an appreciation of astronomy and a broad cosmic perspective. The emphasis of the course is on the current state of knowledge of our solar system, our galaxy, and the universe. Topics on the frontier of astronomical knowledge such as black holes and the search for extraterrestrial life will be explored. This course is designed for those with an interest in astronomy or anyone who desires to expand their cosmic horizons.

**3 Units**  
**54 Lecture hours**

#### **ASTR 112** **Observational Astronomy**

*Prerequisite/Corequisite: ASTR 110 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ASTR 112 or ASTR 114)*

This course is designed to acquaint the student with the methods, techniques, and tools of the astronomer. Indoor labs will demonstrate classical methods and techniques of science. Students will learn the critical thinking processes needed to acquire and analyze scientific data. Students will become familiar with naked eye objects visible during the fall/winter [112], spring/summer [114] including constellations, planets, star clusters, galaxies, meteors, and the phases of the moon. Students will learn to locate objects visually and use astronomical coordinate systems. The development of skill in the operation of optical telescopes is emphasized. This course is designed for those with an interest in learning night skies and the tools astronomers use to explore the cosmos. Observatory facilities will be utilized often, weather permitting. Field trips are an integral part of this class.

**1 Unit**  
**72 Lab hours**

#### **ASTR 114** **Observational Astronomy**

*Prerequisite/Corequisite: ASTR 110 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ASTR 112 or ASTR 114)*

This course is designed to acquaint the student with the methods, techniques, and tools of the astronomer. Indoor labs will demonstrate classical methods and techniques of

science. Students will learn the critical thinking processes needed to acquire and analyze scientific data. Students will become familiar with naked eye objects visible during the fall/winter [112], spring/summer [114] including constellations, planets, star clusters, galaxies, meteors, and the phases of the moon. Students will learn to locate objects visually and use astronomical coordinate systems. The development of skill in the operation of optical telescopes is emphasized. This course is designed for those with an interest in learning night skies and the tools astronomers use to explore the cosmos. Observatory facilities will be utilized often, weather permitting. Field trips are an integral part of this class.

**1 Unit**  
**72 Lab hours**

**ASTR 150**  
**Astronomy Field Studies**

*Prerequisite: ASTR 110*  
*Transfers to: CSU*

This is an observational course designed for students who wish to study celestial objects and observe celestial motions in clear, dark skies through field investigations. Students will develop the skill required to operate portable telescopes in their investigations of stars, constellations, planets, nebulae multiple star systems, the moon, the sun, and the Milky Way. Visual observations of meteors will be conducted nightly. This course is designed for those who wish to learn night skies and the observational tools of the astronomer. Area of study will include, but will not be limited to, campsites in National Monuments and Parks in the southwestern United States.

**1 to 2 Units**  
**9 to 18 Lecture hours**  
**27 to 54 Lab hours**

**ASTR 299**  
**Directed Study: Astronomy**

*Transfers to: UC, CSU*  
Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title

V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

## AUTOMOTIVE BODY REPAIR

**Division of Career &  
Technical Education**

**AUTB 032**  
**Auto Body and Fender Repair**

*Advisory: READ 022 or appropriate assessment*

This is an introductory course designed to survey the field of Auto Body Repair stressing an overall understanding of the techniques, materials, and fundamentals currently used in this area. The course is designed for students having no previous experience who desire a broad overview and basic understanding as a part of their general technical background or who may be interested in further specific education in this field. Sheet metal repairing, refinishing, tension devices, special materials handling, and painting are emphasized.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**AUTB 075**  
**Collision Estimating**

*Advisory: READ 022 or appropriate assessment; AUTB 101*

This course provides a foundation in the basic principles and techniques of automotive collision estimating using the latest revisions of CCC's Pathways Collision Estimating Software. The course is designed to prepare students to enter the field of auto collision estimating with major emphasis placed on diagnosis of damage, writing a damage report, and computer assisted estimates.

**3 Units**  
**54 Lecture hours**

**AUTB 076**  
**CCC Pathways Computer Collision Estimating**

*Advisory: READ 023 or appropriate assessment; AUTB 075*

This course provides comprehensive training in the use of Certified Collateral Corporation (CCC) Pathways Collision Estimating software. Special emphasis will be placed on setting up profiles, creating work files, estimates involving collision and comprehensive losses, creating supplements, storing files, printing estimates, reports, and parts lists. This course is designed for those students who

work at body shops or insurance companies.

**2.5 Units**  
**36 Lecture hours**  
**27 Lab hours**

**AUTB 078**  
**Lab and Field Collision Estimating**

*Advisory: READ 023 or appropriate assessment; AUTB 075*

This is an advanced course in auto collision estimating and is designed to enhance computer collision estimating skills. Students will gain experience in the estimation process through the use of estimating software and vehicle inspections. Topics addressed will include vehicle damage list creation, the production of effective computerized estimates of repairs, and differentiating between included and not included operations. This course is suitable for those students who work with and would like to further their understanding of commonly used computerized collision estimating systems.

**1 Unit**  
**9 Lecture hours**  
**18 Lab hours**  
**18 Other hours**

**AUTB 080**  
**Automotive Painting I**

*Advisory: READ 023 or appropriate assessment*

This is an introductory course in the fundamental aspects of automotive painting. The course is a study in the use of spray equipment and special tools used in automotive painting. Related technical information is presented concerning different types of paint products and finishes, painting safety, hazardous waste handling and disposal, and state regulations and rules used in the automotive paint industry.

**3 Units**  
**18 Lecture hours**  
**108 Lab hours**

**AUTB 085**  
**Automotive Painting II**

*Prerequisite: AUTB 080*

This is an advanced, industry-based course in automotive painting procedures and special effect materials used in painting. Practical experience is provided in the use of spray equipment and special tools used in automotive painting. Related technical information is presented concerning different types of custom paints and finishes, painting safety, and paint problem solving techniques.

**3 Units**  
**18 Lecture hours**  
**108 Lab hours**

**AUTB 090**  
**Advanced Automotive Collision Repair**

*Advisory: READ 023 or appropriate assessment; AUTB 130*

This course is designed for the advancement of skills in the art of automotive collision repair, painting, customizing, and the repair of plastics. Major emphasis is placed on hand and power tool use, theory of design, complete repair projects

and practicing repair skills for employment opportunities.

**2 Units**  
**108 Lab hours**

**AUTB 093**  
**Paintless Dent Removal**

*Advisory: READ 023 or appropriate assessment*

This course provides an overview of paintless dent removal methods and the techniques used to identify damage and repair vehicles in the auto collision industry. Lecture, discussion, and examination of specific damage and tool usage will be used to develop student understanding and skills for locating and repairing minor damage without the need to repaint. Demonstrations on body panels and vehicles will provide the student with an introduction to the kinds of damage that can be addressed using paintless dent removal. This course is suitable for those interested in the field of auto collision and paintless dent removal.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**AUTB 096**  
**Collision Repair Analysis**

*Advisory: READ 023 or appropriate assessment; AUTB 101*

This course provides an overview of the investigative methods and techniques used to identify fraudulent repairs in the auto collision industry. Lecture, discussion, and examination of actual vehicles will be used to develop student understanding of and skill in detecting incompetent or fraudulent repairs. The class consists of demonstrations on actual vehicles that will provide a sampling of incompetent or fraudulent repairs. This course is suitable for those interested in the field of auto collision fraud investigation.

**1 Unit**  
**9 Lecture hours**  
**27 Lab hours**

**AUTB 099**  
**Auto Collision Mechanical and Electronic Components**

*Advisory: READ 023 or appropriate assessment; AUTB 101*

This course provides a foundation in the basic principles and techniques of repair and replacement of mechanical and electronic components involved in collision. The course is designed for students with previous auto body experience and those who desire a broader overview and basic understanding of components related to auto collision repair.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTB 101**  
**Introduction to Automotive Collision Repair and Painting**

*Advisory: READ 023 or appropriate assessment*

*Transfer to: CSU*

This is an introductory course in the fundamental aspects of automotive

collision repair and is designed for anyone with an interest in the subject matter. Major emphasis is on unitized construction, high strength steel, metal straightening and finishing, paint feathering and priming. Related technical information is presented concerning power and hand tools and their use, automobile designs and nomenclature.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**AUTB 110**  
**Auto Body and Frame Straightening**

*Prerequisite: AUTB 101*

*Advisory: READ 023 or appropriate assessment*

*Transfer to: CSU*

This course is designed to provide the student with the theory and basic skills required to repair frame and unibody damage. Practical problems and new procedures are introduced in the process of correcting misalignment of frame and body structures, caused by collision damage, including frame straightening, body alignment, sectioning, door and panel repair, and major collision repair.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTB 125**  
**Automotive Collision Repair and Painting**

*Prerequisite: AUTB 101 Advisory: READ 023 or appropriate assessment*

*Transfer to: CSU*

This course is designed to further the student's knowledge of automotive collision repair and painting. Major emphasis is placed on, straightening minor and major collision damage, replacement of parts, quarter panel and door replacement and sectioning, plastic repair, spot painting and overall painting.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

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## AUTOMOTIVE TECHNOLOGY

Division of Career & Technical Education

**AUTO 045**  
**Honda/Acura Performance I**

*Corequisite: AUTO 140 and AUTO 201*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course introduces maintenance light repair and service operations for late model Honda/ Acura vehicles. Students will engage in MLRS interactive activities, lessons and or special assignments via distant learning using Honda's Interactive Training and Support Network. Upon completion of each MLRS training

module students will be assessed on the subject matter. Successful completion of all MLRS modules will then be accompanied by an Express Service performance evaluation.

During Express Service students will have an opportunity to demonstrate their skills in MLRS areas in a mock dealership environment. Successful completion of all MLR modules and the Express Service evaluation will count toward the students MRLS certification/certificate.

**4 Units**  
**72 Lecture hours**

**AUTO 045I**  
**Honda/Acura Performance II**

*Corequisite: AUTO 150 and AUTO 160*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course provides instruction and testing of Honda/ Acura Performance programs. Course work will include engine, fuel and emission information. Students will learn what is needed to complete hands-on training of each module using American Honda Motors, Inc. interactive network. All complete work will be reported on American Honda's Dealer Personal Tracking System, DPTS.

**4 Units**  
**72 Lecture hours**

**AUTO 046**  
**Honda/Acura Performance III**

*Corequisite: AUTO 125*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course provides theory and operating conditions for late model Honda/ Acura Manual and Automatic Transmissions and Transaxles. Students will engage in interactive activities, lessons or special assignments via distant learning using Honda's Interactive Training and Support Network. Upon completion of each training module students will be assessed on the subject matter. Successful completion will then be recorded through the IN network. Overall completion and or credit will then count toward the students PACT certification/ degree.

**4 Units**  
**72 Lecture hours**

**AUTO 046I**  
**Honda/Acura Performance IV**

*Corequisite: AUTO 240*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course provides theory and operating conditions for late model Honda/ Supplemental Restraint Systems. Students will engage in interactive activities, lessons or special assignments via distant learning using Honda's Interactive Training and Support Network. Upon completion of each training module students will be assessed on the subject matter. Successful completion will then be

recorded through the IN network. Overall completion and or credit will then count toward the students PACT certification/ degree.

**4 Units**  
**72 Lecture hours**

**AUTO 049**  
**Automotive Specialty Practice**

*Advisory: READ 022 or appropriate assessment*

This is an introductory course designed to provide students the opportunity to practice automotive repairs currently performed in dealerships and independent repair shops. Proper repair procedures and use of related tools, equipment and technical data will be emphasized. Focus will be placed on the development of shop skills in the specialized areas of the student's preparation.

**1 Unit**  
**54 Lab hours**

**AUTO 0501**  
**ASE A6 Alternative Course-Automotive Electrical/Electronic Diagnosis and Repair**

*Advisory: READ 023 or appropriate assessment*

This course is designed to prepare students for the equivalent of the ASE A6 exam, a requirement which must be met to partially satisfy the State of California requirements. Course content includes: general engine diagnosis and repair, air/fuel/ignition system diagnosis and repair, and emission control systems diagnosis and repair. Upon successful completion of the course, the student will receive a certificate of completion from the California State BAR.

**1.5 Units**  
**27 Lecture hours**

**AUTO 0502**  
**ASE A8 Alternative Course-Automotive Engine Performance Diagnosis and Repair**

*Advisory: READ 023 or appropriate assessment*

This course is designed to prepare students for the equivalent of the ASE A8 exam, a requirement which must be met to partially satisfy the State of California requirements. Course content includes: general engine diagnosis and repair, air/ignition systems diagnosis and repair, and emission control systems diagnosis and repair. Upon successful completion of the course, the student will receive a certificate of completion from the California State BAR.

**1.5 Units**  
**27 Lecture hours**

**AUTO 0503**  
**ASE L1 Alternative Course-Automotive Advanced Engine Performance Diagnosis and Repair**

*Advisory: READ 023 or appropriate assessment; AUTO 0501; AUTO 0502*

This course is designed to prepare students for the equivalent of the ASE L1 exam, a requirement which must be met to partially satisfy the State of California requirements. Course content includes: general

engine diagnosis and repair, air/fuel/ignition systems diagnosis and repair, and emission control systems diagnosis and repair. Upon successful completion of the course, the student will receive a certificate of completion from the California State BAR.

**1.5 Units**  
**27 Lecture hours**

**AUTO 0504**  
**Automotive Service Excellence (ASE) Certification Preparation**

*Advisory: READ 023 or appropriate assessment*

This course is designed to help the student prepare for and review the theory and skills necessary to pass the Automotive Service Excellence (ASE) certification examinations. All areas of automotive certification (A1-A8): engine repair, automatic trans, manual trans, suspension, brakes, electrical, heating and air conditioning, and engine performance will be reviewed.

**2 Units**  
**36 Lecture hours**

**AUTO 101**  
**Introduction to Automotive Service and Repair**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This is an introductory course designed to provide the student with the fundamentals of the engine and its subsystems of the modern automobile. Students will learn basic automotive tool and equipment use and how to safely perform basic repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 103 and AUTO 106, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 102**  
**Introduction to Honda/Acura Service and Repair**

*Advisory: READ 023 or appropriate assessment; AUTO 101*

*Transfers to: CSU*  
This is an introductory course designed to provide the student with the fundamentals of operation of the various systems of Honda and Acura vehicles. Students will learn basic automotive tool and equipment use and how to safely perform many basic repair and maintenance operations. Students will learn using Honda and Acura vehicles, and school provided units and automotive component parts. All completed work will be reported on American Honda's Dealer Personal Tracking System (DPTS). This course is part

of American Honda's Professional Automotive Career Training (PACT) program.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 103**  
**Introduction to Automotive Service and Repair**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This is an introductory course designed to provide the student with the fundamentals of the transmission, brakes, suspension, heating and air conditioning, engine performance, and emission control systems of the modern automobile. Students will learn basic automotive tool and equipment use and how to safely perform basic repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 101 and AUTO 106, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 106**  
**Automotive Electrical Tools and Diagnostic Procedures**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This is an introductory course designed to provide the student with the fundamentals of the electrical systems of the modern automobile. Emphasis will be placed on electrical fundamentals, symbols and circuit diagrams, batteries, starting, charging, ignition, and lighting systems. Students will learn the proper use of automotive electrical tools and equipment, and how to safely perform basic vehicle electrical repair and maintenance operations. Students will have the opportunity to perform minor repair work on their own vehicles to complete required tasks. This course is designed to be a companion course to AUTO 101 and AUTO 103, and is one of the three prerequisite courses for AUTO 107. Students are encouraged to complete all three courses in order to obtain a firm foundation in this subject, and it is required for the General Service Technician Certificate Program.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 107**  
**Introduction to Automotive Light Service**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Prerequisite: AUTO 101, AUTO 103, and AUTO 106*

*Transfers to: CSU*

This is an introductory course to provide students with working knowledge of light duty service. Students will learn underhood and undercar systems service, battery and basic electrical service, pre-delivery inspection procedures, and preventative maintenance operations. Emphasis will be placed on the safe operation of light-duty service tools and equipment, and general repair procedures of wheels and tires, suspension & steering components, engine and transmission components, engine & vehicle electrical components, and brake system components. This course offers further practice and more experience in the subjects taught in three other introduction courses (AUTO 101, AUTO 103, & AUTO 106).

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**AUTO 108**  
**Introduction to Automotive Diesel Service & Operation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: CSU*

This beginning course introduces students to the field of diesel powered passenger cars theory of operation and general service procedures. This course covers the principals of operation, fuel systems, electrical, exhaust systems, and controls. This course is for the beginning student, general technicians and emission control (smog) technicians interested in automotive diesel technology.

**3 Units**

**54 Lecture hours**

**AUTO 110**  
**Introduction to Engine Diagnosis and Tune-Up**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 103; AUTO 106*

*Transfers to: CSU*

An introductory study of automotive diagnosis and tune-up procedures as they pertain to the function and control of the engine, fuel, ignition, starting, and charging systems. This course is first in a series of Engine Diagnosis and Tune-Up classes, and is designed for the student who wants to enter the field of Tune-Up, Driveability, and Emissions.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**AUTO 115**  
**Computerized Engine Controls and Diagnostics**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 103; AUTO 106*

*Transfers to: CSU*

This course is designed to provide the student with an introduction to the ASE L1 Advanced Engine Performance "Composite Vehicle" by the use of simulator boards and computer-based training methods. This is an introductory study of computerized engine controls and diagnosis as it pertains to the function and control of the engine, fuel, ignition, and emission control systems. Emphasis will be placed upon system components and their operational characteristics. Basic troubleshooting techniques of the engine, fuel, ignition, and emission control systems will be demonstrated.

**3 Units**

**54 Lecture hours**

**AUTO 118**  
**Light Duty Vehicle Diesel Fuel Systems & Emission Control Diagnostics**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 108*

*Transfers to: CSU*

This course is designed to strengthen existing student skills in the field of diagnosing Light Duty Vehicle diesel fuel systems and related driveability and emission control concerns. This course is also for emission control (smog) technicians desiring to take and pass the ASE A9 Light Vehicle Diesel Engines certification exam covering advanced auto/truck diesel technology. Course content includes an advanced study emphasizing the latest theories and principles and troubleshooting procedures of late-model vehicle diesel fuel systems. Emphasis will be placed on advanced diesel engine diagnosis and repair, and diesel engine air, fuel, and emission systems diagnosis and repair. The use of a variety of modern diagnostic tools and equipment is included.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**AUTO 120**  
**Engine Tune-Up/Performance**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 115*

*Transfers to: CSU*

This course is designed to strengthen the student knowledge of modern automotive fuel and ignition systems and the functional knowledge of system components. The class is structured to provide 'hands-on' diagnostic experience in system failure analysis, troubleshooting of components utilizing modern service

repair techniques. Emphasis is placed on electronic diagnosis using Scan-Tools, DVOM, Digital Volt Ohm Meters, Lab Scopes, Exhaust Analyzers, information retrieval systems and diagnostic flow charts.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**AUTO 125**  
**Power Train System Service and Transmission Diagnostics**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; AUTO 102*

*Transfers to: CSU*

This course in power train service and light repair addresses topics in Manual Transmissions, Automatic Transmissions/ Transaxles, Differentials, Clutches and Drive shafts. Emphasis will be placed on correct procedures for sustaining transmission service life, identifying service intervals for prolonging component life, procedures for proper transmission removal and reinstallation and inspection of components. Students will be informed to specific power train related faults, how problems are diagnosed, and protocol for updating transmission shift logic using updated computer software. Topics will be facilitated through class room discussions, live demonstration as well as student laboratory exercises. Students will use scan tools, flushing equipment, computers and a variety of specialty tools to assist them during their classroom and laboratory experiences.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**AUTO 128**  
**Fuel Injection Systems I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 106; AUTO 110*

*Transfers to: CSU*

This course is designed to provide the student with the fundamentals of pre-OBD-II Engine Management Systems related to fuel injected vehicles. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the history and evolution of fuel injection and engine management systems used on vehicles from the late 1960's to 1995. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems as a prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.

**3 Units**

**54 Lecture hours**

**AUTO 130**  
**Basic Clean Air Car Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 115; AUTO 120*

*Transfers to: CSU*

This course is designed to prepare students to take the State of California Motor Vehicle Pollution Control License Examination (Smog Technician Test). Course content includes Engine Theory, Basic Electrical, Ignition Systems, Fuel Systems, and Emissions Systems. Emphasis is placed on proper engine diagnostic procedures, OBD-I and OBD-II systems, and rules & regulations. Lab activities focus on the use of testing equipment, scan tools, digital scopes & meters, as well as inspection and the repair procedures of vehicles that failed the Smog Test. This course is one of two required courses that qualifies students/technicians to meet the Bureau of Automotive Repair (BAR) requirements for the State of California licensing examination preparation.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**AUTO 135**  
**Advanced Clean Air Car Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 120; AUTO 130*

*Transfers to: CSU*

This course is intended to prepare students to take the State of California Motor Vehicle Pollution Control Enhanced Area License Examination (I/M Test). This course is a combination of the Advanced Emissions Diagnostics Update Course and the BAR 97 Transition class. Course content includes: customer awareness, five gas analysis, catalytic converters, baseline techniques, scan tool and lab scope use, and practical application of loaded mode (smog test) emissions testing. Proper diagnosis, testing, services and repair of all emissions systems will be an essential part of this course. This course is one of two courses that qualifies students/technicians to meet the Bureau of Automotive Repair requirements for the State of California Enhanced Area Licensing Examination preparation.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

**AUTO 138**  
**Fuel Injection Systems II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 106; AUTO 110*

*Transfers to: CSU*

This course is designed to provide the student with the fundamentals of post-OBD-II Engine Management Systems related to fuel injected

vehicles. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the history and evolution of fuel injection and engine management systems used on vehicles from 1996 to the present. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems as a prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.

**3 Units**

**54 Lecture hours**

**AUTO 140**  
**Body and Chassis Electrical Systems**

*Advisory: READ 023 or appropriate assessment; AUTO 157*

*Transfers to: CSU*

This course provides an overview of the modern automobile's electrical system as related to the body and chassis of the vehicle. The theory of operation, operational characteristics and methods of problem diagnostics and repair for the following systems are included: lighting, instruments, windshield wipers, power windows/seats/mirrors, audio systems, convertible tops, safety restraints, (SRS) Supplemental Restraint Systems, and anti-theft systems. This course prepares the student for the (ASE) Automotive service Excellence A-6 exam and is intended for Automotive majors.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**AUTO 141**  
**Alternative Fuels I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: CSU*

This is an introductory course on alternative fuels as they pertain to use in modern vehicles. Various alternative fuels will be compared, such as Compressed Natural Gas (CNG), Liquefied Natural Gas (LNG), Hydrogen, Bio-Fuel, LPG, etc. The theory of operation, system components, and the safe handling of these fuels are included. Students will develop skills in the area of vehicle preparation, system component identification, and repair procedures related to vehicles using alternative fuels. This course is designed for students and technicians working on stationary power engines, transportation and clean fuels seeking to improve skills related to the maintenance and repair of gaseous fuels. This course provides students with ASE F1 or H1 test prep information.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**AUTO 142**  
**Alternative Fuels II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 141*

*Transfers to: CSU*

This is the second course on alternative fuel systems used to power modern vehicles. Emphasis will be placed on installation, diagnostic procedures, laptop computers, and computer monitoring of Compressed Natural Gas (CNG), and Liquid Natural Gas (LNG) systems. The application of other alternative fuels such as Hydrogen, LPG, Bio Fuels, etc. will also be covered. Students will also develop skills that interface with modern technology computer based automotive electronic and network controls. SAE and CAN network control systems will also be covered. This course is designed for the experienced technician working in the field of stationary power engines, transportation and clean energy fuels seeking to improve skills related to the installation and repair of gaseous fuels.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**AUTO 147**  
**Introduction to Hybrid and Electric Vehicle Technology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 140*

*Transfers to: CSU*

This course explores the use of Hybrid and Electric power for vehicle transportation. Topics will include safety when using high voltage, maintenance, drivability, inverter power transfer, battery technologies, hydrogen electric power, and fuel cell technology. Physics of battery storage, Hybrid generation systems, Electric vehicle applications and their integrated systems from many manufacturers will be discussed. This course is suitable for student's entering into alternative fuels or power generation and energy technology field.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**AUTO 148**  
**Vehicle Safety, Comfort and Convenience Systems**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 106*

*Transfer to: CSU*

This course is designed to provide the student with the fundamentals of Automotive Safety, Comfort and Convenience Systems related to the modern automobile. Students will learn how to use specific tools and equipment, and how to safely perform basic repair and maintenance operations. Emphasis will be placed upon the SRS Airbag Restraint Systems, ABS and Traction Control Systems, AC and Heating Systems, Lighting Systems, and Theft-deter-

rent Systems. Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other related topics will be discussed. This course requires the student to have a solid background regarding the technical knowledge of basic Automotive Electrical and Electronic Systems as a suggested prerequisite, and is required for the Automotive Electrical, Fuel & Safety Systems Certificate Program.  
**3 Units**  
**54 Lecture hours**

**AUTO 150**  
**Engine Electrical Systems**

*Advisory: AUTO 115*  
*Transfers to: CSU*  
This course discusses the modern automobile's electrical system as related to the engine and various engine related systems. The theory of operation, operational characteristics and methods of problem diagnosis and repair for the following systems are included; electronic ignition systems, electronic fuel injection, engine management, emission control, charging, cooling and starting. This course prepares the student for the (ASE) Automotive Service Excellence; A-8 Engine Performance Exam and is intended for Automotive majors.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTO 155**  
**Automotive On Board Diagnostics Generations One and Two (OBD I and OBD II)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 106; AUTO 120*  
*Transfers to: CSU*  
This course will provide students with the fundamentals of Automotive On-Board Diagnostics, Generations One and Two (OBD-I and OBD-II). Students will discuss the history, regulations, vocabulary, and diagnostic strategies of OBD-I and OBD-II equipped vehicles. Topics of discussion include Safety, Service Information Systems, Electrical Circuits, Symbols & Circuit Diagrams, and other Fuel & Ignition-related subjects. This course requires the student to have a solid background regarding the technical knowledge of basic Gasoline Engine Fuel and Ignition Systems. This course is designed for all automotive majors with a background in advanced emission repair.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 157**  
**Automotive Specialized Electronics Training**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; AUTO 103; AUTO 106*  
*Transfers to: CSU*  
This course provides an overview of the principles of automotive electron-

ics. Topics covered include electrical theory, fundamentals of circuit construction, computers, semiconductors, microprocessors, integrated circuits (IC), types of output signals, wire repair techniques, meter usage and strategy based diagnostics. A demonstration General Motors circuit board will be used to illustrate circuit board function. This course is designed for entry level technicians or students who need an understanding of the basics of automotive electronics.  
**4 Units**  
**72 Lecture hours**

**AUTO 160**  
**Upper End Engine Rebuilding and Machining**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 101*  
*Transfers to: CSU*  
This course provides occupational preparation in the skills required in the adjustment and repair of the modern automobile engine upper-end and valve train assembly. Emphasis is placed on problem diagnosis, repair techniques, service procedures, and machining operations. This course prepares the student for the (ASE) Automotive Service Excellence A-1 exam and is intended for automotive majors.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTO 170**  
**Lower End Engine Rebuilding and Machining**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 101; AUTO 160*  
*Transfers to: CSU*  
This course provides occupational preparation in the skills required for adjustment and repair of modern automobile engine lower end assembly. Emphasis is placed on problem diagnosis, repair techniques, service procedures, and machining operations. This course prepares students for the Automotive Service Excellence (ASE) A-1 exam and is intended for automotive majors.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTO 180**  
**Advanced Automotive Diagnosis**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 120*  
*Transfers to: CSU*  
This course is designed to strengthen existing student skills in the field of automotive tune-up and driveability. Course content includes an advanced study emphasizing the latest theories and principles of automotive diagnosis and troubleshooting procedures. Emphasis will be placed on advanced engine diagnosis and repair, air, fuel and ignition system diagnosis and repair, and emission system diagno-

sis and repair. The use of a variety of modern diagnostic tools and equipment is included.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 190**  
**Engine Blueprinting & Machining**

*Advisory: AUTO 160 or AUTO 170; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This is an advanced course for students interested in engine blueprinting and engine machining practices. Topics include: cylinder block machining and preparation, cylinder head machining and repair, crankshaft materials and construction, connecting rod applications and machining, piston design and applications as well as camshaft lobe applications and profile analysis. Students must be proficient with basic precision instruments or have prior experience with engine machining or assembly practices. Emphasis will be placed upon engine blueprinting methods machining operations and component applications.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**AUTO 200**  
**Suspension, Steering, and Alignment Service**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 101, AUTO 103*  
*Transfers to: CSU*  
This course discusses the principles of suspension, steering and wheel alignment for modern imported and domestic automobiles and light trucks. Emphasis is placed on developing skills required in the diagnosis, and/or repair and adjustment to steering systems and wheel alignment angles. Complete suspension and steering system overhaul will be covered in the laboratory. Computerized wheel alignment and computerized wheel balancing equipment will be used/demonstrated. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in suspension, steering and alignment.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**AUTO 201**  
**Automotive Brake and Suspension Service**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 101; AUTO 103*  
*Transfers to: CSU*  
This course discusses brakes and suspension theory of operation, service and repair procedures, related tool and equipment use and strategy based problem diagnosis. These procedures for imported and domestic automobiles and light trucks are

developed through classroom discussions, demonstrations and laboratory experiences. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in brake and suspension service.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 210** **Automotive Brake Systems**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 101; AUTO 103*

*Transfers to: CSU*

This course discusses modern disc and drum brake theory of operation, service and repair procedures, related tool and equipment use and strategy based problem diagnosis. These procedures for imported and domestic automobiles and light trucks are developed through classroom discussions, demonstrations and laboratory experiences. This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in Brake service.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 211** **Antilock Brakes/Traction Control Systems**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 210*

*Transfers to: CSU*

This course is designed for students wanting to work in the automotive sector or automotive technicians needing to improve their skills and knowledge in modern Anti-lock and/or Traction Control systems. This course will provide instruction in automotive anti-lock brake systems, traction control systems and vehicle stabling assist (VSA), including diagnosis, operation and maintenance of ABS/ TCS/VSA. The course will include the use of scanners, DVOM meters and lab-scopes in diagnosis of various ABS/TCS/VSA systems; both 2 wheel and 4 wheel systems will be covered.

**3 Units**  
**54 Lecture hours**

#### **AUTO 220** **Manual Drive Trains and Axles**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 125*

*Transfers to: CSU*

This course discusses modern manual transmissions, transaxles, driveline and differential theory operation, methods of repair, service, equipment operation and techniques of problem diagnosis. Procedures for import and domestic vehicles are developed through classroom discussion, demonstrations and laboratory experiences. This course prepares the

student for the (ASE) Automotive Service Excellence A-3 Exam and is intended for automotive majors.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 230** **Automatic Transmission/Transaxle**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 125*

*Transfers to: CSU*

This course is designed to provide instruction in Automatic Transmission/Transaxle systems. Included will be the application of friction materials, planetary gear components, hydraulic components; both hydraulically controlled and electronically controlled, fluid types and sealing materials. The student will achieve skill in diagnosis, removal, disassembly, reassembly and rebuilding transmission units to manufacturer's specifications and learn part nomenclature and function.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 240** **Heating and Air Conditioning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AUTO 103*

*Transfers to: CSU*

This course is designed to provide instruction on the operating principles of common automotive heating and air conditioning systems. Retrofitting R-12 systems to R-134a will be covered as well as the rules of AQMD/EPA. Students will be given the opportunity to earn their certification license (EPA. Rule 1411).

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 256** **Automotive Scantools and Vehicle Network Systems**

*Advisory: READ 023 or appropriate assessment; AUTO 150*

*Transfers to: CSU*

This course is designed to enhance the student's electrical and electronic diagnostic skills in both the automotive powertrain management spectrum. This course emphasizes an in-depth study of various automotive computer systems, vehicle communication network systems, as well as the latest Scantools available to help aid diagnostics of these systems. Course content includes advanced electrical and electronic systems theory and diagnosis, OBD-I and OBD-II engine and transmission management systems diagnostics, and basic vehicle network systems diagnostics. The majority of the course content focuses on proper Scantool usage, including proper tool selection, updating software, identifying and using data streams, and understanding the numerous serial data protocols, including CAN data communications.

**3 Units**  
**54 Lecture hours**

#### **AUTO 260** **Advanced Hybrid/Electric Vehicle**

*Prerequisite: AUTO 147*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment; AUTO 157*

*Transfer to: CSU*

This course continues the study of the use and service of Hybrid Electronic generation and Plug-in Battery Electric power for vehicle transportation. The course is not for beginner technicians. Topics will include: OSHA/NEC/NFPA safety when using high voltage, vehicle maintenance, drivability conditions, inverter power transfer, battery storage technologies, regeneration of electrical power from kinetic energy, Level I, Level II, Level II battery charging and fuel cell technology. Dynamics of battery storage, Hybrid generation systems, Electric vehicle applications and their integrated systems from many manufacturers will be discussed. High-Voltage battery management systems including active/passive design to charging systems will be primary focus of this course. This course is for student's working in the Hybrid and Electric vehicle, power engineering and technology field.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **AUTO 290** **Cooperative Work Experience/ Internship for Automotive Technology Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the automotive/transportation field and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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# BIOLOGY

## Division of Mathematics & Sciences

### BIOL 101

#### General Biology

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: BIOL 101 or BIOL 200)*

General Biology 101 is a general education course, open to all students, and is designed to provide an introduction to concepts and principles of modern biology. Topics covered will include cell structure and function, energy relationships, genetic control mechanisms, concepts of evolution, biological diversity, and ecosystem function. The laboratory component of the course emphasizes the application of the scientific method as a tool to understanding living systems.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

### BIOL 105

#### Human Biology

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course will provide an introduction to the basic principles, structures, functions and biological processes of the human body. This lecture only course will emphasize a scientific viewpoint of the workings of the human body and its interactions with the environment as well as the necessary practices needed to promote a healthy body. The course's target audience are those students pursuing a liberal arts education who are interested in furthering their own knowledge of human biology.

**3 Units**

**54 Lecture hours**

### BIOL 111

#### Marine Biology

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed to give the student a better understanding of the basic principles of Marine Biology and fulfills the general education lecture requirement for the life sciences. Emphasis is placed on how the scientific method is used to investigate the chemical, physical, and geological properties of the marine environment. Students will learn to distinguish among the diverse organisms and habitats that comprise the ocean's ecosystems. An introduction to the structure and function of marine ecosystems is provided and

the impact of human activity on those systems will be addressed.

**3 Units**

**54 Lecture hours**

### BIOL 111L

#### Marine Biology Laboratory

*Prerequisite/Corequisite: BIOL 111*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: UC, CSU*

This laboratory course complements the Marine Biology lecture course and is designed for the student interested in furthering their understanding of the marine environment and its organisms, with emphasis on marine life of the local coasts. The scientific method will be employed to investigate the chemical and physical properties of seawater, the role of pigments in marine algae, the behavior of marine organisms, the basic classification and morphology of marine producers, invertebrates and vertebrates, and adaptations of organisms to specific habitats. Students will use basic laboratory equipment and techniques in both classroom and field-based investigations. Field trips to coastal marine habitats and public aquaria are conducted.

**1 Unit**

**54 Lab hours**

### BIOL 112

#### Outdoor Biology

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: UC, CSU*

This course emphasizes the natural world and the ecological relationships of the organisms found within it. The course also emphasizes the natural habitats of Southern California and the plants and animals associated with them. The impact people have had upon these natural habitats is also discussed. Students utilize the Rio Hondo College Wildlife Sanctuary to gather original data through firsthand observation, experiences, and with the use of scientific methodology.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

### BIOL 120

#### Environmental Biology

*Advisory: ENGL 101; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: UC, CSU*

Utilizing basic biological concepts, an interdisciplinary approach is used to address environmental challenges. Topics addressed may include ecosystem characteristics and functions, population dynamics, energy and material resource use, pollution, and alternative energy sources. Students in many disciplines will benefit from this course as the social, political, and economic implications of environmental decisions are addressed. This

course fulfills the general education requirement in life sciences.

**3 Units**

**54 Lecture hours**

### BIOL 120L

#### Environmental Biology Laboratory

*Prerequisite/Corequisite: BIOL 120*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

*Transfers to: UC, CSU*

This laboratory course complements the Environmental Biology lecture course and is designed for students interested in furthering their understanding of the environmental sciences. The scientific method will be employed to investigate ecosystems and their functions, natural selection, population interactions, environmental toxicology, radiation exposure effects, soil and groundwater systems, water pollution, alternative energy systems, and environmental resistance.

**1 Unit**

**54 Lab hours**

### BIOL 125

#### Human Anatomy

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; BIOL 101*

*Transfers to: UC, CSU*

This course is primarily a systems approach to the study of human body structure. The study of each body system includes structural specializations and functions from the microscopic to the system level emphasizing the interdependence of form and function. Additional topics include methods of anatomical study, human genetics, and embryonic development. The laboratory exercises will also include vertebrate dissections. This course is intended for students preparing to enter careers in the health sciences.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

### BIOL 200

#### Principles of Biology 1 (Molecular and Cellular Biology)

*Prerequisite: CHEM 120 and MATH 070 or MATH 070D or MATH 073 or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: BIOL 101 or BIOL 200)*

This course is first in a sequence of courses for undergraduate preparation for biology majors. Areas of focus include cellular and molecular biology, bioenergetics, genetics, evolution and ecology. The laboratory portion of the course emphasizes scientific methodologies focusing on observations, experimentation, record keeping, data collection and analysis, and presentation of outcomes. The course sequence also provides excel-

lent preparation for those students intending to pursue post-graduate studies in the medical sciences.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

**BIOL 201**  
**Principles of Biology 2 (Diversity and Ecology)**

*Prerequisite: BIOL 200 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course continues the sequence of undergraduate preparation for biology majors. The course is a survey of the diversity of life on earth, focusing on the relationships between structure and function. Topics deal with classification, development, evolutionary relationships and ecological functions of living organisms. Laboratories will emphasize life forms, experimentation and dissections. Field trips will be used to examine organisms in their natural settings.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

**BIOL 203**  
**Principles of Zoology**

*Prerequisite: 1.) BIOL 200 or 2.) BIOL 101, MATH 070 or appropriate assessment, and CHEM 130*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course surveys the animal-like protists and the major animal groups. Emphasis is placed on diversity, structure, function, evolutionary adaptations and relationships. Other topics include animal impacts on human health and economies. Laboratory survey and dissection and field trips are used to illustrate these principles. This course is intended for transferring Biology majors.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

**BIOL 204**  
**Principles of Botany**

*Prerequisite: 1.) BIOL 200 or 2.) BIOL 101, MATH 070 or appropriate assessment, and CHEM 130*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is a combined lecture and lab course in botany examining the relationships between plant forms and functions. An emphasis is placed on plant physiology, plant morphology, plant growth and development. The recognition of plant families and the identification of plants of local ecosystems are also stressed. The participation in field trips is highly recommended. This course is intended for transferring Biology majors.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

**BIOL 205**  
**Molecular Biology and Biotechnology**

*Prerequisite: BIOL 200; CHEM 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for Life Science majors and introduces them to the basic concepts of biochemistry, molecular biology and molecular genetics; including protein structure and function, DNA structure and replication, transcription, RNA processing, translation, and recombinant DNA technology. Students will also be introduced to the science of biotechnology by providing both the theory and hands-on experience with laboratory protocols that include the isolation, purification, and cloning of a gene; including the use of restriction enzymes, electrophoresis, library construction, blotting and hybridization and sequencing. Polymerase chain reaction (PCR) will be explained in detail, particularly how it has revolutionized research in molecular biology, medicine, forensics, systematics and evolutionary biology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**BIOL 206**  
**Principles of Genetics**

*Prerequisite: BIOL 200*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for Life Science majors as a continuance of their general biology studies. This course will cover a variety of topics relevant to the study of genetics, ranging from classical to nontraditional Mendelian genetics, from bacterial and viral genetics to human genetics, and include studies on molecular techniques and their applications. Other topics will include chromosome analysis, population genetics and genomics.

**3 Units**  
**54 Lecture hours**

**BIOL 222**  
**Microbiology**

*Prerequisite: CHEM 110*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; BIOL 101*  
*Transfers to: CSU*

The course encompasses the biology of microorganisms with an emphasis on the role of bacteria and viruses on human health and disease. Other topics include resistance and immunity to disease, basic biological principles, microbial genetics and physiology, the harmful and useful aspects of microorganisms in nature, medicine and industry. Laboratory exercises emphasize sterile culture techniques, the detection, isolation and identification of microorganisms.

This course is intended for students preparing to enter careers in the health sciences.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

**BIOL 226**  
**Human Physiology**

*Prerequisite: BIOL 125 and CHEM 110*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; BIOL 101*

*Transfers to: UC, CSU*

Human Physiology provides a general introduction to the function and regulation of human body systems. Physiological integration of the systems to maintain homeostasis and the significance of biochemistry is emphasized throughout the course. Course content will include neural and hormonal homeostatic control mechanisms, and a study of the musculoskeletal, circulatory, respiratory, digestive, urinary, immune and endocrine systems. Laboratory exercises will allow students to gather physiological data and draw conclusions on how physiological mechanisms are regulated. This course is intended for students preparing to enter careers in the health sciences.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**BIOL 299**  
**Directed Study: Biology**

*Transfers to: UC, CSU*

Independent Study /Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## BUSINESS LAW

### Division of Business

#### BUSL 110

##### Legal Environment of Business

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (\*credit limit), CSU (\*Students will receive credit from UC for only one of the following courses: BUSL 110 or BUSL 220)*

This course examines the legal regulatory, and international environment of business. Included are the topics of alternative dispute resolution, the forms of business organization, regulations affecting employment, and current environmental statutes. Case studies are used to discuss torts, crimes, contracts and sales, warranty and product liability, labor law, employment discrimination, and environmental law.

**3 Units**

**54 Lecture hours**

#### BUSL 220

##### Business Law

*Prerequisite: BUSL 110*

*Transfers to: UC (\*credit limit), CSU (\*Students will receive credit from UC for only one of the following courses: BUSL 110 or BUSL 220)*

A continuation of BUSL 110, this course includes a study of the following areas: negotiable instruments, security devices, partnerships and corporation, insurance, real property, personal property, estates, bankruptcy, and government and business. The student should consult the college to which he plans to transfer for the junior year before registering for this course.

**3 Units**

**54 Lecture hours**

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## CARPENTRY

### Division of Career & Technical Education

#### CARP 020A

##### Orientation/Safety I

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, founda-

tions, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020B

##### Health and Safety Certifications

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020C

##### Blueprint I

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020D

##### Builders Level and Transit

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and applica-

tion of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020E

##### Foundations and Flatwork

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020F

##### Wall Forms

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**

**20 Lecture hours**

**20 Lab hours**

#### CARP 020G

##### Stairs and Ramp Forming

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced

blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**  
**20 Lecture hours**  
**20 Lab hours**

#### **CARP 020H**

##### **Welding**

*Prerequisite: Indentured Apprenticeship with the State of California*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**  
**20 Lecture hours**  
**20 Lab hours**

#### **CARP 020I**

##### **Advanced Welding**

*Prerequisite: Indentured Apprenticeship with the State of California*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications, basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**  
**20 Lecture hours**  
**20 Lab hours**

#### **CARP 020J**

##### **Advanced Blueprint**

*Prerequisite: Indentured Apprenticeship with the State of California*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the carpentry industry. Modules cover the following topics: history of the carpentry profession along with state and federal labor law, job layout, safe working conditions, health and safety certifications,

basic blueprint reading, advanced blueprint reading, use and application of levels and transits, foundations, flatwork, wall structures, stairs and ramps, welding materials and welding applications.

**1 Unit**  
**20 Lecture hours**  
**20 Lab hours**

## **CHEMISTRY**

### **Division of Mathematics & Sciences**

#### **CHEM 101**

##### **Chemistry and Our World**

*Prerequisite: READ 023 or appropriate assessment*

*Advisory: ENGL 101; MATH 030 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant credit for only one of the following courses: CHEM 101, CHEM 110)*

This course explores the properties and reactions of matter, focusing on chemical applications of social concern. Student will investigate elementary principles of chemistry, including chemical and physical properties of the elements, the states of matter, nomenclature, basic atomic theory, acids and bases, organic chemistry, biochemistry, and nuclear chemistry. Supplementary topics will be selected from topics of current social interest, including air and water pollution: chemical, nuclear and alternative energy sources; chemical and biological warfare; chemistry and the law; and the pharmaceutical industry and drug design. Emphasis will be placed on the construction of effective and informed arguments, both verbal and written. The content of this course is oriented to the non-science major, and mathematical content will be presented at a basic level.

**3 Units**  
**54 Lecture hours**

#### **CHEM 101L**

##### **Chemistry and Our World Laboratory**

*Prerequisite/Corequisite: CHEM 101*

*Transfers to: UC, CSU*

This laboratory course complements the corresponding lecture section, demonstrating important concepts and theories through relevant experiments. Topics will include simple chemical reactions, separations of mixtures, and formation and analysis of everyday chemicals, among others. The scientific method will be presented as a tool to guide laboratory investigations. Laboratory measurement techniques will be emphasized throughout the course.

**1 Unit**  
**54 Lab hours**

#### **CHEM 110**

##### **Chemistry for Allied Health Majors**

*Prerequisite: MATH 050 or MATH 050D or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; Concurrent enrollment in MATH 070 or MATH 070D*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant credit for only one of the following courses: CHEM 110, CHEM 120)*

This course provides an introduction to the fundamental concepts of general, organic, and biological chemistry, and is especially appropriate for students intending to pursue a career in nursing and other health-related professions, including kinesiology and psychology. Emphasis is placed on the relationship between chemistry and the health/medical sciences. Weekly laboratory activities require students to empirically verify concepts presented in lectures. No previous background in chemistry is required or expected of students enrolling in this course.

**5 Units**  
**54 Lecture hours**  
**54 Lab hours**  
**18 Other hours**

#### **CHEM 120**

##### **Introduction to Chemistry**

*Prerequisite: MATH 070 or MATH 070D with a grade of "C" or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant credit for only one of the following courses: CHEM 110, CHEM 120)*

This one-semester course is designed for students intending to major in science or engineering. The course primarily prepares students for Chemistry 130; additionally, it fulfills the general education requirement in the physical sciences. This course introduces the fundamental principles of general chemistry, with emphasis on chemical nomenclature and quantitative problems in chemistry. The lecture presents classical and modern chemistry including atomic theory, periodic properties, chemical bonding, chemical reactions, stoichiometry, acids and bases, gas laws and solutions. The laboratory introduces the techniques of experimental chemistry with examples from all areas of chemistry.

**5 Units**  
**54 Lecture hours**  
**54 Lab hours**  
**18 Other hours**

#### **CHEM 130**

##### **General Chemistry**

*Prerequisite: CHEM 120 with a grade of "C" or better*

*Advisory: ENGL 101; READ 023 or appropriate assessment; MATH 175 or appropriate assessment*

*Transfers to: UC, CSU*

Chemistry 130 is the first semester of a two semester sequence designed for

students intending to major in science and engineering. The lecture course covers classical/modern chemistry, with applications, in stoichiometry and classical atomic theory of chemistry, periodic properties, gas laws, modern quantum theory of atomic and molecular structure and periodic properties, thermochemistry, liquids and solids, solution chemistry. The laboratory introduces experimental chemistry with examples from all areas of chemistry.

**5 Units**

**54 Lecture hours**

**72 Lab hours**

**36 Other hours**

### **CHEM 131**

#### **General Chemistry**

*Prerequisite: CHEM 130 with a grade of "C" or better*

*Advisory: ENGL 101; READ 023 or appropriate assessment; MATH 180 or appropriate assessment*

*Transfers to: UC, CSU*

CHEM 131 is a continuation of CHEM 130. Theory and techniques of elementary physical chemistry are stressed. Emphasis is placed on the dynamics of chemical change using thermodynamics and reaction kinetics as the major tools. A thorough treatment of equilibrium is given, with many examples of solubility, acid-base, and redox equilibria, including electrochemical concepts. Brief introductions to organic and nuclear chemistry are presented. Various analytical techniques used in modern chemistry are introduced. Descriptive chemistry of representative metallic and nonmetallic elements is included.

**3 Units**

**54 Lecture hours**

### **CHEM 131L**

#### **General Chemistry**

*Prerequisite/Corequisite: CHEM 131 or completion of CHEM 131 within one calendar year prior to enrollment in CHEM 131L*

*Advisory: ENGL 101; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This laboratory course is designed to be taken concurrently with CHEM 131. Experiments are used that show the relationship between experimental measurement and chemical theory and may include exercises on kinetics, equilibrium, electrochemistry, basic nuclear and organic chemistry, acid-base theory, and qualitative analysis. Modern instrumental methods are used in some exercises. Experiments are designed to encourage and require the student to do some preparing prior to the laboratory period. Quantitative thinking and procedures are introduced early and emphasized throughout the course.

**2 Units**

**108 Lab hours**

### **CHEM 230**

#### **Organic Chemistry I**

*Prerequisites: CHEM 131 and CHEM 131L with a grade of "C" or better*

*Transfers to: UC, CSU*

This course, the first of a two-semester sequence, provides a rigorous introduction to the practical and theoretical aspects of organic chemistry. Several topics will be explored in depth, including molecular structure and hybridization, applications of acid/base theory to organic compounds, stereochemistry, alkanes, alkenes, alkynes, dienes, substitution and elimination reactions, and spectroscopic methods of analysis (e.g. IR, UV/VIS, NMR). Particular emphasis will be placed on thermodynamic and kinetic aspects of reactions and detailed examination of reaction mechanisms. Laboratory exercises are designed to provide students with a solid foundation in the essential techniques of organic chemistry, including the determination of melting points, thin layer and column chromatography, extraction, distillation, and spectroscopic analysis of products. This course is appropriate for students majoring in chemistry, biological sciences, and chemical engineering, and satisfies the admissions requirements for medical, dental, veterinary, and other health-related graduate programs.

**5 Units**

**54 Lecture hours**

**108 Lab hours**

### **CHEM 231**

#### **Organic Chemistry II**

*Prerequisite: CHEM 230 with a grade of "C" or better*

*Transfers to: UC, CSU*

This course, the second of a two-semester sequence, provides a rigorous introduction to the practical and theoretical aspects of organic chemistry. The chemistry of aromatic and carbonyl-containing compounds will be emphasized throughout the course of the semester. Bioorganic compounds will be introduced. Particular emphasis will be placed on thermodynamic and kinetic aspects of reactions, the detailed examination of reaction mechanisms, and the design of multi-step syntheses. Laboratory exercises require students to use the techniques learned in the previous semester to carry out more complex reactions and multi-step synthesis. Additionally, students will investigate the techniques of organic qualitative analysis. This course is appropriate for students majoring in chemistry, biological sciences, and chemical engineering, and satisfies the admissions requirements for medical, dental, veterinary, and other health-related graduate programs.

**5 Units**

**54 Lecture hours**

**108 Lab hours**

### **CHEM 299**

#### **Directed Study: Chemistry**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## **CHICANO STUDIES**

**Division of Behavioral  
& Social Sciences**

### **CHST 101**

#### **Introduction to Chicano Studies**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is an introductory course that examines the historical and contemporary experiences of Chicanos in American society. Topics include the formation of Chicano identity, the Chicano Movement, and current government policies affecting this group. Students interested in this course may include individuals with familial or personal connections to the Chicano (Mexican-American) community and/or those intending to work in environments with high concentrations of this population.

**3 Units**

**54 Lecture hours**

**CHST 146**  
**The Mexican American in the History of the U.S.**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

The course is a survey of U.S. history from the end of the nineteenth century to the present with an emphasis on the Mexican American's social, economic, and political development. It also reviews American political development leading to the adoption of the U.S. Constitution, examines the principles of the U.S. Constitution, and analyzes U.S. political systems as they pertain to the Mexican American experience. This course is designed for students interested in exploring familial and/or personal connections to the Chicano (Mexican American) community and/or those intending to work in environments with high concentrations of this population.

**3 Units**  
**54 Lecture hours**

**CHST 148**  
**La Chicana: The Contemporary Mexican-American Female (Same as SOC 148)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

The introductory course will examine the ethnic identity formation of the Mexican-American woman. The students will analyze the employment, education, religious, family, historical and cultural influences present in the lives of Mexican-American females. This course is appropriate for students interested in furthering their understanding of the social construction of the Mexican-American woman.

**3 Units**  
**54 Lecture hours**

**CHST 150**  
**Chicano Politics (Same as POLS 150)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines U.S. history and political issues relevant to the Chicano/Latino community, provides an overview of Chicano/Latino demographics in the U.S. examines Chicano/Latino political activism and the rise of Chicano/Latino political leadership. This is an entry level course serving as an elective for both the Political Science and Chicano Studies majors.

**3 Units**  
**54 Lecture hours**

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## CHILD DEVELOPMENT

Division of Behavioral & Social Sciences

**CD 095**  
**Current Issues in Child Development**

*Advisory: CD 106; CD 110*

A working knowledge of current issues in the field of Child Development, leadership and advocacy skills and professionalism will be the focus of this course. The course is meant for students who are interested in understanding the current issues and changes in the field of Child Development. This course meets State Of California Teacher Credentialing requirements for the Child Development Permit and Department of Social Services Classification Indicator DS3.

**1 Unit**  
**18 Lecture hours**

**CD 102**  
**Nutrition, Health and Safety for Children**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students interested in working in group care and educational programs that enroll children from infancy to early adolescence. The course focuses on preventive health and safety practices in group care environments for both children and adults and integration of these practices into everyday program planning and development. Introduction will also be provided regarding the laws, regulations, standards, policies and procedures and child development curriculum related to child nutrition, health and safety. Topics will include prevention and recognition of infectious disease, immunization, dental and mental health, child nutrition, menu planning, sanitary food handling, prevention of injury, emergency preparedness and evacuation, providing services for children with special needs and child abuse prevention, identification and reporting responsibilities. The importance of program collaboration with families and health professionals will also be addressed. This course meets the Department of Social Services Classification Indicator DS7 and the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 103**  
**Parenting**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who are interested in gaining information to understand and work effec-

tively with parents and to understand the parent child relationships in their own lives. The course provides a framework for topics pertinent to current parenting concepts. The following topics will be explored and examined: understanding the parenting process from infancy to adulthood, parenting in diverse culture, various life styles and family structures, alternatives to biological parenting and understanding high risk families.

**3 Units**  
**54 Lecture hours**

**CD 104**  
**Methods for Teaching Parent Education**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for child development students interested in developing skills in working with and educating parents. The course provides the framework for preparing students who are interested in specializing in parenting and/or teaching parent education classes. Students will participate in developing lesson plans, class schedules, and leading parent discussion seminars. Topics covered include: leadership techniques, structuring parent education classes considering theoretical perspectives regarding the family, parent education topics, and resources for parents. This course meets the California Commission on Teacher Credentialing requirements for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 106**  
**Child Growth and Development**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit \*), CSU (\*Students will receive credit from UC for only one of the following courses: CD 106 or PSY 112)*

This course provides an overview of human growth from conception to adolescence. The theories of development relevant to life through the teenage years are introduced and the social, emotional, cognitive and physical aspects of these early stages of life are addressed. This course is appropriate for students preparing for a profession working with children and their families or those interested in furthering their understanding of child and adolescent development. This course is also designed to meet the Department of Social Service Classification DS1 and applies toward the State of California Title V requirement for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 110**  
**Principles and Practices of Early Childhood Education**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course is designed for students desiring to work in educational programs for children from birth to age eight. The course is an examination of the underlying theoretical principles of developmentally appropriate practices applied to programs, environments, emphasizing the key role of relationship, constructive adult-child interaction and teaching strategies in supporting physical, social, creative and intellectual development for all children. This course includes a review of the historical roots or early childhood programs and the evolution of the professional practices promoting advocacy, ethics and professional identity. This course meets the Department of Social Services Classification Indicator DS3 and the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 111**  
**Early Childhood Education Curriculum**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This introductory course presents current concepts in childhood curriculum development and implementation. The student will design curriculum based on observation and assessment of young children to support play and learning using developmental, inclusive and anti-bias principles in collaboration with families to support all children; demonstrate knowledge of the teachers' role in evaluating best practices and apply understanding of children's learning and development. This course is meant for students who plan to create and implement children's educational programs. This course is also designed to meet the State of California Title 22 Department of Social Service Classification Indicator DS3 and applies toward the State of California Title V requirements for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 114**  
**Observation and Assessment**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course is designed for students working towards a Child Development permit. The course focuses on appropriate use of assessment and observation strategies to document development, growth, play and learning in order to join with families and professionals in promoting children's success and maintaining quality programs. Recording strategies, rating

systems, portfolios, and multiple assessment methods are explored. Advantages and disadvantages of observation techniques, observer bias and cultural considerations are discussed. This course meets the Department of Social Services Classification Indicator DS 3 and applies toward the State of California Title V requirement for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 115**  
**Creative Art Experiences for Children**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course is appropriate for students interested in facilitating and supporting creativity in group care and educational environments for children. The course provides a comprehensive study of creativity and its impact on child development. A developmental perspective will be utilized as students explore creative art and its impact on the whole child, the artistic development process, aesthetics, the elements of art, specific art program approaches, artistic styles, facilitating and supporting creative art experiences for children, art assessment techniques and specific art experiences. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 118**  
**Development of Science and Math Experiences**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course provides a framework from which to explore the theories, philosophies, principles, and implementation of science and math experiences for children from birth to early adolescence. Emphasis is placed upon theoretical and developmental foundations with practical application in the form of developmentally appropriate activities for use in the school and the child care center. This course is targeted for students preparing for a career in teaching children. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 119**  
**Music and Movement for Children**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course offers a framework for

providing developmentally appropriate music and movement principles and experiences for children birth to early adolescence. The developmental characteristics of movement and music abilities will be outlined along with the basics of movement and music education. Students will participate in music and movement related activities. This course is designed for students interested in working with children in group care and educational programs. The course meets the Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 120**  
**Experiences in Language Arts**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course is designed for students who are interested in promoting and facilitating the language development of children. The course is a study of philosophies, principles and implementation of language arts experiences for children from birth to early adolescence. The theoretical basis of language development and systems of teaching literacy will be addressed. Literature, dramatics, flannel board stories, puppetry, and storytelling are incorporated into the course as strategies for language acquisition as well as literacy activities. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 128**  
**Child Growth and Development During the School Years**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course focuses on the developmental needs of children from 5-14 years and will include the physical, cognitive, linguistic, social and emotional aspects of the school-age child. Emphasis will be placed on gaining an understanding of various strategies that address the needs of school-aged children. This course is directed towards students seeking employment in educational programs for school-age children. The course meets the Department of Social Services Classification Indicator DS5 and applies towards the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 129**  
**School-Age Care Supervision and Administration**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course presents the principles of administration and supervision of school-age care programs. Topics covered include: characteristics of a quality program; staff roles; school-age children's development; developmentally-appropriate discipline and guidance, environment, and curriculum; policies and procedures for program operation; and laws and regulations. The unique features of a school-age care program as opposed to a preschool child care program or the regular school day will be addressed. Students taking this course will be prepared for a position working as an administrator or supervisor in a school-age care program. This course meets the State of California Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS 5.

**3 Units**  
**54 Lecture hours**

**CD 130**  
**School-Age Child Care and Curriculum**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is meant for students interested in providing enrichment curriculum for school-age children enrolled in out of school child care programs. The course focuses on the development and implementation of developmentally appropriate curriculum. Topics covered include developmental theories, issues related to the growth and development of school-age children and teaching methods and practices that utilize that knowledge. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS5.

**3 Units**  
**54 Lecture hours**

**CD 208**  
**Child, Family and Community**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students desiring to work with children in a group setting, as well as for parents and others who wish to further their understanding of how the socio-cultural environment affects the developing child. The course examines the historical and contemporary inter-relationship of family, school and community on child development. The process of socialization and identity formation will be highlighted, showing the importance of respectful,

reciprocal relationships that support and empower families. This course meets the Department of Social Services Classification Indicator DS2 and the State of California Department of Education Title V Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 210**  
**Adult Supervision**

*Prerequisite: CD 106, CD 110, CD 208*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who wish to develop the skills to effectively supervise staff working in children's educational programs. The course is a study of the methods and principles of supervising student teachers, assistant teachers, parents and volunteers in early childhood / child development classrooms. Emphasis is on the role of the classroom teachers who function as mentors to new teachers while simultaneously addressing the needs of children, parents and other staff. This course meets the requirements for a course in adult supervision for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 211**  
**Infants and Toddlers**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is a study of factors that affect the developmental progress of children from birth through 2 years. Current developmental theories specific to this age and practical applications that nurture the cognitive, language, emotional, social, personality, and motor development are explored. Emphasis will be placed on the role of the adult in designing, assessing and implementing the education (education and caring) of infants and toddlers. Culturally sensitive care, as well as early recognition and intervention for infants and toddlers with special needs is discussed. This course is recommended for students who are interested in working with infants and toddlers in center-based programs, family child care and parental care. This course meets The Department of Social Services Classification Indicator DS4 and applies towards the State of California Department of Education Title V Child Development Permits.

**3 Units**  
**54 Lecture hours**

**CD 213**  
**Developing and Implementing Infant/Toddler Curriculum**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will prepare students for a position working with infants

and toddlers in a group setting. The course presents the elements of a quality infant and toddler program. Topics covered will include the theories of growth and development, laws and regulations governing group programs, program quality standards, and the significance of the caregiver's relationship to the child. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS4.

**3 Units**  
**54 Lecture hours**

**CD 222**  
**Administration of Educational Programs for Young Children**

*Prerequisite: CD 110*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will illustrate the principles of organization and administration of federal, state, private for-profit and private non-profit children's programs. Presentation of evaluative tools including ECERS (Early Childhood Environments Rating Scale), COR (Child Observation Record), and California Desired Results for operating programs for children is included. Students will also learn fundamental information related to program operation in the areas of budget, state regulations, inclusion, cultural awareness and developmental appropriate practices. This class provides academic training for students preparing to qualify as program administrators. The course meets State of California Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS6.

**3 Units**  
**54 Lecture hours**

**CD 223**  
**Advanced Administration of Educational Programs for Young Children**

*Prerequisite: CD 129 or CD 222*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students desiring to further enhance their program administration skills. Topics covered in CD 222 and CD 129 are explored more in depth with a specific focus on program funding, grant writing and the national accreditation process for children's programs. Other advanced topics will include interdisciplinary and interagency functions, dealing with boards and evaluation of the program. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS6.

**3 Units**  
**54 Lecture hours**

**CD 224**  
**Diversity Issues During Early Childhood, School Age and Adolescence**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course addresses the similarities, variety and multiplicity found within programs and educational settings for Young Children, School Age Children and Adolescents. Topics covered include: family values, culture, race, gender, social class, sexual preference, language and abilities. Focus will also be placed on developmental appropriateness in addressing diversity, parental perspectives and the effects of diversity on the domains of development. This course is designed for students wishing to work in children's programs and educational settings. This course meets the Department of Social Services Classification Indicator DS 3 and applies towards the State of California Department of Education Title V Child Development Permits.

**3 Units**  
**54 Lecture hours**

**CD 226**  
**Introduction to Special Education**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course introduces students to the field of special education. Instruction will focus on understanding basic strategies for working with children, birth to early adolescence, that are at-risk or have a diagnosed disability. Issues related to family dynamics and education resources and strategies will also be discussed. Public policy requires that children with special needs are learning in environments with their same-age peers. This course will prepare students who wish to work in children's programs or educational environments to facilitate the learning and development of children with special needs. Applies toward the State of California Teacher Credentialing requirements for the Child Development Permit.

**3 Units**  
**54 Lecture hours**

**CD 228**  
**Early Childhood Education Practicum**

*Prerequisite: CD 106, CD 110, CD 111, CD 114 and CD 208*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

In this capstone course the student will practice and demonstrate developmentally appropriate early childhood program planning and teaching competencies under the supervision of Child Development faculty and other qualified early education professionals. Students will utilize practical classroom experiences to make connections between theory and practice, develop professional behaviors, and build a comprehensive understanding of children and fami-

lies. Child centered, play-oriented approaches to teaching, learning, and assessment; and knowledge of curriculum content areas will be emphasized as student teachers design, implement and evaluate experiences that promote positive development and learning for all young children. This course is designed for students looking for a supervised field/laboratory experience in an early childhood setting. The course meets The Department of Social Services Classification Indicator DS3 and applies towards the State of California Department of Education Title V Child Development Permits.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**CD 229**  
**Literacy Development for Children**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is appropriate for students interested in facilitating and supporting literacy development in children enrolled in group care and educational environments. Focus is on effective skills and techniques utilized by teachers and caregivers to enhance the development of Emergent Literacy skills throughout childhood. Students will develop knowledge of the sequence of Literacy and Language Development, Developmentally Appropriate Practices in classroom environments and a Balanced Literacy Approach. Effective assessment, curriculum and techniques to promote skill development will also be introduced. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 230**  
**Family Child Care**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who want to open and operate a family child care program. Emphasis will be placed on the management and operation of a family child care facility including how to create a budget, advertisement, recruitment of children, and conforming to State of California Title 22 regulations. This course will also cover effective parent communication, setting up an appropriate environment and community resources. This course meets the California Commission on Teacher Credentialing requirements for the Child Development Permit and the Department of Social Services Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 231**  
**Curriculum for Family Child Care**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who are preparing to work in a family child care program or to operate their own program. This course provides an overview of the fundamentals of planning and implementing a curriculum for family child care. Emphasis is placed on understanding the importance of a philosophy statement, goals and objectives for lesson plans, setting up the physical environment, the caregiver's role, and the parent's role. The unique challenges of organizing a home as a learning environment, dealing with multi-age groups, and small groups will also be addressed. This course meets the California Commission on Teacher Credentialing requirements for the Child Development Permit and the Department of Social Services Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 232**  
**Educating Children With Special Needs**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will prepare students and parents to participate in the planning and implementation of programming for children with special needs. The course focuses on supporting the educational process of children with special needs within group settings utilizing multidisciplinary approaches that incorporate the family in the planning and implementation of programming. Topics will include assessment, diagnosis, appropriate placement, individualized program planning and educational approaches and adaptations. Criteria outlined by laws regarding Special Education and court rulings will be addressed along with the issue of program accountability. The course meets State of California Commission on Teacher Credentialing requirements for the Child Development Permit and Department of Social Service Classification Indicator DS3.

**3 Units**  
**54 Lecture hours**

**CD 299**  
**Directed Study: Child Development**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Stud-

ies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.  
**1 to 4 Units**  
**54 to 216 Lab hours**

## CHINESE

Division of Communications & Languages

### CHIN 101 Chinese I

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*  
 This course provides the student with an introduction to the Chinese language and culture. The course stresses oral and written proficiency through fundamental use of Chinese pronunciation and the Pinyin Spelling System. Students will also receive an introduction to Chinese characters. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. Various facets of Chinese history, culture and civilization will also be analyzed via cross-cultural comparisons. This course is intended for those interested in learning to speak Chinese as well as for those seeking a degree in the Chinese language.  
**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

### CHIN 102 Chinese II

*Prerequisite: Completion of CHIN 101 with a "C" or better, or completion of 2 years high school Chinese with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*  
 This course is a continuation of the essentials of the Chinese Language.

The course stresses oral and written proficiency through fundamental use of Chinese pronunciation and the Pinyin Spelling System. Students will continue to further their knowledge of Chinese characters. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. Various facets of Chinese history, culture and civilization will also be analyzed via cross-cultural comparisons. This course is intended for those interested in learning to speak Chinese as well as for those seeking a degree in the Chinese language.  
**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

## CIVIL DESIGN

Division of Career & Technical Education

### CIV 140 Civil Drafting Fundamentals

*Advisory: ENGT 101 or two years of high school drafting; ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment.*  
*Transfers to: CSU*  
 This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. The course is a study of civil design drafting practices and the preparation of drawings used in the civil engineering field. Students will use Computer Aided Drafting (CADD) software to complete projects relating to interpretation of survey data, profiles and cross sections, land subdivision, site and grading plans, underground utilities and structures, concrete and structural detailing.  
**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

### CIV 142 Introduction to Land Surveying and GPS

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 102*  
*Transfers to: CSU*  
 This course is for all students interested in the career field of Civil Design Drafting, Surveying/Mapping, and Civil Engineering. Introduction to Surveying and GPS will cover the principles and practices of land surveying which will include the measuring of distance, direction, elevation and position, topographic mapping, and use and care of surveying equipment. The fundamentals of global positioning systems (GPS) and their applications in land surveying

will also be introduced. This course will also be beneficial for those in the construction industry who need to acquire property data.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

### CIV 143 Applications to Surveying and GPS

*Prerequisite: CIV 142 Advisory: MATH 050 or appropriate assessment*  
*Transfers to: CSU*  
 This course is for all students with a basic understanding of surveying who are interested in pursuing a career in the field of Land Surveying. This course presents advanced applications that will cover the theory and practice of plane surveying, including principles of position, horizontal and vertical curves, construction staking, alignments, field procedures, U.S. Public Land Survey System, Boundary Surveying, use and care of surveying equipment.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

### CIV 241 Civil Engineering Drafting and Design

*Prerequisite: ENGT 200*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
 This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Drafting and Design is an intermediate level class in which the practices and the preparation of drawings, pertaining to the civil engineering field, will be expanded to include the development of maps and drawings used for transportation, site development, grading and drainage and road alignment. The student will use Computer Aided Drafting (CADD) to complete the above mentioned projects. Other topics to be covered will include specifications, site details for utilities and underground piping, structural plans and integration of Geographic Information Systems (GIS).  
**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

### CIV 245 Civil Engineering Design and Modeling

*Prerequisite: ENGT 170*  
*Advisory: READ 023 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment*  
*Transfers to: CSU*  
 This course is for all students interested in the career field of Civil Engineering Design Drafting and Civil Engineering. Civil Design & Modeling is an advanced level class which includes design analysis and the preparation of drawings used in the civil engineering field. The student will use civil engineering software, such as In-Roads and Land Desktop to design, analyze and develop projects relating to transportation,

site development, grading, drainage and road alignment and alternatives. Other topics to be covered are terrain modeling, surface editing, alignment editing, plan, profile, cross-sections, earthwork computations and site planning design.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**CIV 290**  
**Cooperative Work Experience/  
Internship for Civil Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is in civil engineering design / drafting related fields and have completed or enrolled in the appropriate coursework. Instructor approval is needed to remain in the class. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*  
**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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## COMPUTER INFORMATION TECHNOLOGY

Division of Business

**CIT 042**  
**Computer Literacy**

*Advisory: CIT 100A*  
This basic computer literacy course is designed to provide the student with skills necessary to understand and communicate with computers. It will include hardware and software basics, file management, computer networks, and the Internet. The course is taught on a lecture-lab basis: (3) hours in the classroom and a minimum of (2) hours in the laboratory each week. This course is taught in a six-week module during the regular semester. This course is recommended for all community college students in order to prepare them for their college-level courses which may require the knowledge

of the microcomputer and its use for completion of assignments.

**1 Unit**  
**18 Lecture hours**  
**12 Lab hours**

**CIT 060**  
**Windows Operating System**

*Advisory: CIT 100A*  
This course is a comprehensive course of the Microsoft Windows operating system and its graphical user interface. The student will learn: Graphical User Interface/Mouse, My Computer, File Management with Explorer, WordPad, Paint, and data sharing using the Clipboard. The Find program, object linking and embedding, printers and fonts will also be included. Networking capabilities of Windows will be used and disk maintenance tasks will be performed.

**3 Units**  
**54 Lecture hours**  
**36 Lab hours**

**CIT 100A**  
**Keyboarding**

*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

The course is designed to enable the student to master the alphanumeric keyboard on a microcomputer by touch and to gain a thorough knowledge of current keyboarding techniques. This course is recommended for all students to provide them with the skills necessary to use touch keyboarding to prepare reports and general course assignments.

**1 Unit**  
**9 Lecture hours**  
**27 Lab hours**

**CIT 100B**  
**Keyboarding Speed and Accuracy**

*Advisory: READ 023 or appropriate assessment; CIT 100A*  
*Transfers to: CSU*

This course is designed to improve students' speed and accuracy on a computer keyboard by analyzing their keyboarding techniques and prescribing specific drills to increase their timed writing rate. It is taught as a lab or on-line. This course is recommended for all students who have learned the location of the keys on the keyboard and who now want to improve their speed and accuracy in preparation of reports and general course assignments.

**1 Unit**  
**18 Lecture hours**

**CIT 101**  
**Introduction to Computer Information Technology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 100A*  
*Transfers to: UC, CSU*

This is an introductory computer course, which offers students both fundamental computer concepts and training in spreadsheets and database microcomputer applications. Topics include the importance of computers

in business and society, the information processing cycle, the Internet, communication and networks, the latest hardware and software developments, and planning a career as a computer professional or a computer user. This is the basic computer course designed for Business majors.

**3 Units**  
**54 Lecture hours**

**CIT 102**  
**Introduction to Microsoft Office**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 100A*  
*Transfers to: CSU*

This course is intended as an introduction for students wanting to learn the latest version of the integrated program suite of Microsoft Office Professional. The student will be provided with the basics of each of the programs in the suite - Word, Excel, Access, PowerPoint, and Outlook as well as their Internet integration. In addition, an introduction to fundamental computer concepts will be presented including hardware and software basics, file management, computer networks and communications.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**CIT 103**  
**Introduction to Microsoft Word**

*Advisory: CIT 060; CIT 100A or ability to key by touch*  
*Transfers to: CSU*

This is an introductory word processing course, which will provide instruction in the use of the latest version of Microsoft® Word® applications software. Students will learn the basic editing and formatting functions of the program. Document maintenance, formatting enhancements, and the creation and formatting of tables will also be presented. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting an introduction to Microsoft® Word®.

**1.5 Units**  
**18 Lecture hours**  
**27 Lab hours**

**CIT 104**  
**Advanced Microsoft Word**

*Prerequisite: CIT 103*  
*Transfers to: CSU*

This course presents the advanced features of the latest version of Microsoft Word®. Specific topics include merging documents, macros and styles, specialized tables, protected forms and shared documents. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting to master Microsoft Word.

**1.5 Units**  
**18 Lecture hours**  
**27 Lab hours**

**CIT 105****Microsoft PowerPoint***Advisory: CIT 101**Transfers to: CSU*

This course provides the student with an overview of the presentation software Microsoft® PowerPoint®. Specific topics include planning and creating a presentation, applying and modifying text and graphics objects, using design templates, working with graphics and sound from other file formats and the World Wide Web, preparing charts, and presenting slide shows. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting instruction in Microsoft® PowerPoint® leading to Microsoft® Office Specialist Certification.

**1.5 Units****27 Lecture hours****18 Lab hours****CIT 107****Introduction to Microsoft Excel***Advisory: CIT 101**Transfers to: CSU*

This is an introductory microcomputer spreadsheet applications course, which will provide instruction in the use of the latest version of spreadsheet software for business applications. Students will learn to manage financial data, develop formulas and use functions with proper syntax, create charts and graphs, and build Web pages from worksheets. This course is intended for students desiring to complete the requirements for the Computer Information Technology Microcomputer Specialists Degree or professionals wanting an introduction to Microsoft Excel.

**1.5 Units****18 Lecture hours****27 Lab hours****CIT 108****Advanced Microsoft Excel***Prerequisite: CIT 107**Advisory: CIT 115**Transfers to: CSU*

This is an advanced microcomputer spreadsheet applications course, which will provide instruction in the use of the latest version of spreadsheet software. Students will learn to integrate Excel with other Windows programs and the World Wide Web, create Excel tables, PivotTables and PivotCharts, build Excel applications using macros and buttons, and enhance workbooks with Visual Basic. This course is intended for students desiring to complete the requirements for the Computer Information Technology Computer Systems Degree, or professionals wanting to learn the advanced functions and programming features of Microsoft® Excel®.

**1.5 Units****18 Lecture hours****27 Lab hours****CIT 109****Introduction to Microsoft Access***Advisory: READ 023 or appropriate**assessment; CIT 101**Transfers to: CSU*

This is an introductory microcomputer database applications course, which will provide instruction in the use of the latest version of database software for business applications. Students will learn to create and modify tables, build table relationships, add and edit records, create forms for data entry, and produce simple queries and reports. This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals wanting an introduction to Microsoft Access.

**1.5 Units****27 Lecture hours****CIT 110****Advanced Microsoft Access***Prerequisite: CIT 109**Advisory: READ 023 or appropriate**assessment**Transfers to: CSU*

This is an advanced microcomputer database applications course, which will provide instruction in the use of the latest version of database software with emphasis on the software as a programming tool. Students will learn advanced query functions, custom forms design for data entry, custom report writing, and sharing and integrating data with Web pages. This course is intended for students desiring to complete the requirements for the Computer Information Technology Computer Systems Degree or professionals wanting to learn the programming features of Microsoft Access for managing databases.

**1.5 Units****27 Lecture hours****CIT 111****Introduction to Programming***Advisory: MATH 050 or appropriate**assessment**Transfers to: CSU*

This course is designed to develop the problem-solving abilities of the student who intends to continue in the computer field. Various techniques used will include hierarchy diagrams, data flow diagrams, flow-charting, data diagrams, and pseudo code. This course will also include information on Microsoft Visual Studio.NET's integrated development environment (IDE).

**3 Units****54 Lecture hours****CIT 112****Survey of Object-Oriented Programming***Advisory: ENGL 030 or ENLA 034 or**appropriate assessment; READ 022 or**appropriate assessment; MATH 050 or**appropriate assessment; CIT 097**Transfers to: UC, CSU*

This class covers the basic syntax for three object-oriented programming languages: C++, Visual Basic and Java. Using the Microsoft Studio

environment, this class includes the following topics: introduction to computers, logic, input/output, looping and structures.

**3 Units****54 Lecture hours****CIT 115****Introduction to Visual Basic Programming***Advisory: READ 023 or appropriate**assessment; CIT 111**Transfers to: UC, CSU*

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals wanting an introduction to Visual Basic Programming. This course will cover the fundamentals of software development using the most popular language – Visual Basic. Course topics include: designing programs, writing the source code, compiling, linking, executing and debugging programs, data types, arithmetic/logical expressions, procedures, decisions, repetition, arrays, processing sequential files, processing random access files, graphical display, controls and objects.

**4 Units****72 Lecture hours****CIT 116****Advanced Visual Basic Programming***Prerequisite: CIT 115**Advisory: READ 023 or appropriate**assessment**Transfers to: UC, CSU*

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using an object-oriented programming language. This course will review the fundamentals of software development and cover advanced programming skills using the Visual Basic language. Advanced topics include: user interface concepts, database management, custom controls, and Window common controls, multiple document applications, class, ActiveX and distributing programs.

**4 Units****72 Lecture hours****CIT 125****C++ Programming - Introduction***Advisory: READ 023 or appropriate**assessment; CIT 111**Transfers to: UC, CSU*

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using Visual C++ programming language. This course will cover the fundamentals of software development using the most popular language: C++. The topics covered include: designing, writing the source code, compiling, linking, executing, debugging, data types, arithmetic/logical expressions,

pointers, looping, branching, classes, objects and static and dynamic memory allocation.

**4 Units**  
**72 Lecture hours**

#### **CIT 126**

##### **C++ Programming - Advanced**

*Prerequisite:* CIT 125  
*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using an object-oriented programming language. This course will review the fundamentals of software development and cover the advanced programming skills using the C++ language. Advanced topics include: classes and data abstraction, operator overloading, inheritance, virtual function and polymorphism, stream I/O and Exception Handling.

**4 Units**  
**72 Lecture hours**

#### **CIT 130**

##### **Windows Configuration**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment  
*Transfers to:* CSU

This course is designed for students preparing to take the Windows client operating system certification exam. Students will learn to install, upgrade and migrate from previous to the current Windows client operating system and deploy Windows using system images and configure virtual hard disks. Students will also learn to configure hardware & applications, network connectivity, access to resources, mobile computing, backup and recovery, and monitoring and maintaining systems that run Windows.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

#### **CIT 131**

##### **Windows Server Active Directory**

*Prerequisite:* CIT 130  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment  
*Transfers to:* CSU

This course is designed for students preparing to take the Windows Server Active Directory, Configuring certification exam. Students will learn to configure Domain Name System, Active Directory infrastructure, Active Directory Roles & Services, creating and maintaining Active Directory objects, maintaining the Active Directory environment, and configure Active Directory Certificate Services.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

#### **CIT 133**

##### **Windows Server Applications Infrastructure**

*Prerequisite:* CIT 130  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment  
*Transfers to:* CSU

This course is designed for students preparing to take the Windows Server Applications Infrastructure certification exam. Students will learn to deploy servers, configure remote desktop services, configure web services infrastructure, and configure network application services.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

#### **CIT 135**

##### **Introduction to Java Programming**

*Advisory:* READ 023 or appropriate assessment; CIT 111  
*Transfers to:* UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals wanting an introduction to Java Programming. This course will cover the fundamentals of software development using the most popular Open Source language – Java. Course topics include: program design, algorithms, writing and testing source code, arithmetic/logic expressions, control structures, objects and basic Java structures.

**4 Units**  
**72 Lecture hours**

#### **CIT 136**

##### **Advanced Java Programming**

*Prerequisite:* CIT 135  
*Advisory:* READ 023 or appropriate assessment  
*Transfers to:* UC, CSU

This course is intended for students desiring to complete the requirements for the Computer Information Technology Degree or professionals who want to continue developing their programming skills using Java. This course covers the basics of the software development and the advanced programming skills using the Java language. Topics include Java data syntax, data structure, applets, graphics, animation, inheritance, abstract windows toolkit, exception handling, file input and output, and multi-threading.

**4 Units**  
**72 Lecture hours**

#### **CIT 145**

##### **Introduction to C# Programming**

*Advisory:* READ 023 or appropriate assessment; CIT 111  
*Transfer to:* CSU

This course is intended for students or professionals desiring to enhance their programming skills using the Microsoft.NET framework. This course will review the fundamentals of software development, and cover software development skills using the C#.NET program. Topics include Windows-based applications, Web

Services with XML (eXtensible Markup Language) data exchange, components and controls, database interfaces using ADO (ActiveX Data Objects) and SQL (Structure Query Language), and graphics programming.

**4 Units**  
**72 Lecture hours**

#### **CIT 152**

##### **Introduction to Web Page Design for Business**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment; CIT 150  
*Transfers to:* CSU

This course provides students with an understanding of the fundamentals of HTML (Hyper Text Markup Language) programming to design Web pages. Students will create custom Web pages for personal Internet and business Intranet environments. Java Script and MS FrontPage 2000 will also be included.

**3 Units**  
**54 Lecture hours**

#### **CIT 155**

##### **Introduction to E-Commerce**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment; CIT 101  
*Transfers to:* CSU

This course offers a hands-on problem-solving approach for learning the basic to more advanced features of doing business on the Internet. You will learn to use Ecommerce effectively, such as: gather corporate information, make a purchase online, develop an effective company Web site, or find global trading partners. You will learn how and why electronic commerce is an important part of our economy and our society.

**3 Units**  
**54 Lecture hours**

#### **CIT 160**

##### **Introduction to Operating Systems**

*Advisory:* CIT 060  
*Transfers to:* CSU

This course provides an overview of the operating systems that are currently used to create an e-business infrastructure. Operating systems discussed include Windows, Unix, Linux, Novell and Mac and their use in the industry. An in-depth study of Windows 2000 Server is also presented. Topics discussed are how to setup, install, and administer Windows 2000 Servers. This course is designed for students interested in learning operating systems and the use of operating systems in running corporate information systems.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**CIT 161****Intermediate Web Page Design***Advisory: CIT 152**Transfers to: CSU*

This course provides a hands-on in-depth study of web scripting languages for students interested in web page development. The fundamentals of programming logic will be reviewed and scripting languages such as VBScript and JavaScript will be introduced. The use of these programs and how they are used to manipulate and enhance static web pages will be addressed.

**4 Units****72 Lecture hours****CIT 162****Advanced Web Page Development***Advisory: CIT 110**Transfers to: CSU*

This course provides the students with a project-based approach to developing and implementing interactive database-driven Web pages. The course offers an overview of the tools used to connect databases to Web-based applications. Students will learn to develop interactive Web sites using tools such as Active Server Pages (ASP.Net). Students entering the course should possess knowledge of relational databases, such as Microsoft Access, and HTML. This course is intended for students who wish to create Web applications integrated with databases.

**3 Units****54 Lecture hours****CIT 163****Internet Server Management***Advisory: CIT 101; CIT 152; CIT 160**Transfers to: CSU*

This course provides a lab-based approach to setting and administering Web, FTP, DNS, and email servers. Popular servers are discussed including Web servers, FTP servers, DNS servers, and email servers. Students learn how to install, configure, maintain and secure IIS, MS DNS, and SendMail. Web page setup and maintenance is also emphasized. This course is intended for students interested in designing and administering an intranet or Internet system for an ISP or a business.

**3 Units****36 Lecture hours****54 Lab hours****CIT 180****PC Maintenance-A+ Certification***Prerequisite: CIT 101**Advisory: READ 023 or appropriate assessment**Transfers to: CSU*

This course will prepare students with the necessary competencies of an entry-level IT professional with hands-on experience and theory in computer technology, networking and security. The student will also learn communication skills and professionalism now required of all entry-level IT professionals. This course is intended for IT students wishing to prepare for the CompTIA A+ Essentials and CompTIA A+

Practical Application examinations, the two exams required to achieve CompTIA A+ certified status.

**4 Units****54 Lecture hours****54 Lab hours****CIT 185****PC Maintenance - A+ Certification Practical Application***Prerequisite: CIT 180**Advisory: READ 023 or appropriate assessment**Transfers to: CSU*

This course will extend the knowledge and skills attained in the PC Maintenance - A+ Certification Essentials course with more of a "hands-on" orientation focused on scenarios in which troubleshooting and tools must be applied to resolve problems. This course is intended for IT students wishing to prepare for the CompTIA A+ Practical Application examination, one of two exams required to achieve CompTIA A+ certified status.

**3 Units****45 Lecture hours****27 Lab hours****CIT 187****Customer Service for Help Desk Professionals***Prerequisite: CIT 101**Advisory: READ 023 or appropriate assessment**Transfers to: CSU*

This course will provide students with the "soft" skills required to deliver high quality customer support at the help desk. In addition to information obtained during lecture, students will have the opportunity to use a hands-on approach to learning the skills of active listening, effective communication, problem solving, handling difficult customer situations, stress management, and team building. This course is intended for IT students who want to improve their customer service skills or qualify for entry level positions in PC maintenance.

**3 Units****54 Lecture hours****CIT 190****Introduction to Information Security***Prerequisite: CIT 101**Advisory: READ 023 or appropriate assessment**Transfers to: CSU*

This course provides an introduction to the various technical and administrative aspects of information security. The student will gain an understanding of the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. This course is intended for IT students and professionals who want to develop a foundation in information security systems.

**3 Units****54 Lecture hours****CIT 192****Network Security I***Prerequisite: CIT 101**Advisory: READ 023 or appropriate assessment; CIT 190**Transfers to: CSU*

This course is intended for IT students and professionals who want to develop a foundation in information security systems. The course is the first in a two-course series providing an in-depth study of network security. The student will gain an understanding of the key issues associated with protecting an organization's network including identifying specific types of threats, protecting the network against those threats, and recovering from the occurrence of a threat. Specific topics covered include network access authentication, attacks on the network, e-mail protection, and Web security.

**3 Units****45 Lecture hours****27 Lab hours****CIT 194****Network Security II***Prerequisite: CIT 192**Advisory: READ 023 or appropriate assessment; CIT 190**Transfers to: CSU*

This course is intended for IT students and professionals who want to develop a foundation in information security systems. The course is the second in a two-course series providing an in-depth study of network security. The student will gain an understanding of the key issues associated with protecting an organization's network including identifying specific types of threats, protecting the network against those threats, and recovering from the occurrence of a threat. Specific topics covered include network access authentication, attacks on the network, e-mail protection, and Web security.

**3 Units****45 Lecture hours****27 Lab hours****CIT 200****Systems Analysis and Design***Prerequisite: CIT 101**Transfers to: CSU*

This course provides an overview of the processes, tools, and techniques used to analyze and design computer-based information systems. Students will gain an understanding of the systems development life cycle, strategic planning, feasibility studies, fact-finding techniques, data flow diagrams, structure English, object-oriented analysis and design, automated system design tools, entity-relationship diagrams, system testing, documentation, training and maintenance activities. Students will apply the course concepts through case studies. This course is suitable for students seeking a career in computer information technology.

**3 Units****54 Lecture hours**

**CIT 210**  
**Telecommunications in Information Systems**

*Advisory: READ 023 or appropriate assessment; CIT 101*  
*Transfers to: CSU*

This is a course designed to familiarize the student with the terminology and capabilities of data communications systems. Mastery of this material will enable participation in decisions regarding alternative configurations of data communications components. This course specifically covers that part of telecommunications that relates to computer systems, or the electronic transmission of computer data. Students will be expected to complete case assignments outside of class.

**3 Units**  
**54 Lecture hours**

**CIT 211**  
**Internetworks and Router Fundamentals**

*Prerequisite: CIT 210*  
*Advisory: Windows and DOS basics*  
*Transfers to: CSU*

This course covers wide area internetworking fundamentals. Topics cover router fundamentals, router setup and configuration, network management, routing and routed protocols, and network troubleshooting. This is the second course in a four course sequence that qualifies the student to take the CISCO CCNA certification test.

**3 Units**  
**54 Lecture hours**

**CIT 212**  
**Internetworks /LAN Design**

*Prerequisite: CIT 210*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for those students who are interested in Local Area Network (LAN) design with consideration of LAN switching, VLANs, ACLs, IPX, network management, and major consideration of the functions of layers 1-4 in the OSI layers. A threaded case study will reinforce the student's ability to design, install, and maintain school-sized internetworks. This is the third course in a four-course sequence that qualifies the student to take the CISCO CCNA certification test.

**3 Units**  
**54 Lecture hours**

**CIT 213**  
**Internetworks/WAN Design**

*Prerequisite: CIT 210*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for those students who are interested in Wide Area Network (WAN) design with detailed coverage on WAN Technologies, PPP, ISDN, Frame Relay, network management, preparation for the Net+ Certification exam and a review for the CCNA Certification Exam. Completion of the threaded case study will reinforce the student's

ability to design, install, and maintain school-sized internetworks. This is the fourth course in a four-course sequence that qualifies the student to take the CISCO CCNA certification test.

**3 Units**  
**54 Lecture hours**

**CIT 290**  
**Cooperative Work Experience/ Internship for Computer Technology Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Business Management and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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## COOPERATIVE WORK EXPERIENCE- GENERAL

Division of Career &  
Technical Education

**CWEG 290**  
**Cooperative Work Experience Education - General**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in an actual work environment under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a professional environment and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment.

**Student Paid Internship:**

*1 unit/75 hours;*  
*2 units/150 hours;*  
*3 units/225 hours*

**1 to 3 Units**  
**3 Lecture hours**

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## CORRECTIONS

Division of Public Safety

**CORR 101**  
**Introduction to Corrections**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide Corrections or other interested students with an overview of the history and trends of adult and juvenile corrections. It will focus on probation, parole, legal issues, specific laws and the general operation of correctional institutions. The relationship between corrections and other components of the justice system will also be examined. This course has been identified by the Correctional Peace Officer Standards and Training Board of the Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.

**3 Units**  
**54 Lecture hours**

**CORR 104**  
**Control and Supervision in Corrections**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CORR 101*  
*Transfers to: CSU*

This course is designed to provide Corrections or other interested students with an overview of supervision of inmates in the local, state and federal correctional institutions. The issues of control in a continuum form of institutional daily living through crisis situations will be introduced and discussed. The course will emphasize the role played by the offender and the correctional worker. Topics include inmate subculture, violence and effects of crowding on inmates and staff, and coping techniques for correctional officers in a hostile prison environment. The causes and effects of abusive tactics will also be discussed. This course has been identified by the Correctional Peace Officer Standards and Training Board of the California Department of Corrections, California Youth Authority, and California Correctional Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.

**3 Units**  
**54 Lecture hours**

**CORR 106**  
**Legal Aspects of Corrections**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CORR 101*  
*Transfers to: CSU*

This course is designed to provide Corrections or other interested students with an awareness of the historical framework, concepts,

and precedents that guide correctional practice. Course material will broaden the individual's perspective of the corrections environment, civil rights of prisoners, and responsibilities and liabilities of corrections officials. This course has been identified by the Correctional Peace Officer Standards and Training Board of the California Department of Corrections, California Youth Authority, and California Correctional Peace Officers Association to fulfill educational requirements of the CPOST Certificate for newly hired officers after July 1, 1995 by CDC and CYA.  
**3 Units**  
**54 Lecture hours**

**CORR 134**  
**Introduction to Interviewing and Counseling**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CORR 101*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with an overview of the techniques available to entry level practitioners in counseling and interviewing. While it is an introduction to approaches of behavior modification through interviewing and counseling, some of the advanced methods utilized by professional counselors such as game concepts, transactional analysis, sensitivity and confrontation methods will also be examined. The development of positive relationships between the client and support personnel will be stressed.  
**3 Units**  
**54 Lecture hours**

**CORR 188**  
**Leadership in Corrections**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with an overview of the skills necessary to be an effective leader in a correctional setting. Topics addressed include the unique challenges faced by executives managing in prison settings, approaches to ensuring the creation and maintenance of a safe prison environment, and techniques for personnel development.  
**3 Units**  
**54 Lecture hours**

**CORR 209**  
**Case Load Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with an introduction to effective caseload management in a correctional setting. Topics include the laws, policies, and bargaining units that govern caseload management. Specialized supervision issues such as offenders with psychological

problems and second strike offenders will also be addressed.  
**3 Units**  
**54 Lecture hours**

**CORR 210**  
**Supervision in Public Safety**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with an overview of the characteristics needed to be an effective supervisor in a correctional setting. Topics include basic supervisory responsibilities, the importance of effective interpersonal communications, and managing personnel complaints in a prison setting.  
**3 Units**  
**54 Lecture hours**

**CORR 235**  
**Conflict Resolution**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with an in-depth understanding of conflict situations in which abnormal or non-normal behavior is manifested. Topics covered include concepts of anxiety, fear, frustration, hostility, aggression, motivation and manipulation roles. Minorities, crowd and mob interaction, alcohol, drugs, sexual problems, character, neurotic and psychotic disorders, youthful offenders, stress of incarceration, and brain disorders will also be discussed.  
**3 Units**  
**54 Lecture hours**

**CORR 264**  
**Inmate Discipline in Corrections**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*  
*Transfers to: CSU*  
This course is designed to provide Corrections or other interested students with the correctional process of inmate discipline. Topics covered include due process, disciplinary process, disciplinary reports, findings and disposition. The curriculum covered is recommended by the California Commission on Peace Officer Standards and Training.  
**3 Units**  
**54 Lecture hours**

**CORR 265**  
**Supervision of Sex Offenders**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*  
*Transfers to: CSU*  
This course is designed to provide California Peace Officers or other interested students with instruction into the correctional process of supervision of inmates who have been convicted of sex offenses. Topics include human sexuality and dysfunctions, theories of sexual offense, offender typologies and supervision

techniques. The curriculum follows that recommended by the California Commission on Peace Officer Standards and Training and the California Corrections Commission on Peace Officer Standards and Training.  
**3 Units**  
**54 Lecture hours**

**CORR 290**  
**Public Safety Communications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 101*  
*Transfers to: CSU*  
This course is designed to provide California Peace Officers or other interested students with an in-depth understanding of public safety communication in the Correctional field. Topics include techniques of effectively communicating facts of information and ideas in a clear and logical manner for public safety reports. Students will gain practical experience in interviewing, note taking, report writing, and testifying.  
**3 Units**  
**54 Lecture hours**

**CORR 43502**  
**Custody Training Officer School**

*Prerequisite: PAC 040*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
This course is designed to assist the experienced custody officer or other Corrections students with current information needed to become qualified training officers. Topics covered include supervision, leadership, and communication skills.  
**0.063 to 0.5 Unit**  
**9 to 40 Lecture hours**

**CORR 43503**  
**Advanced Tactical Communications**

*Prerequisite: PAC 040 or equivalent*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
This course is designed to teach custody officers or other Corrections students advanced communication skills required to interact effectively with inmates in a custody setting. Topics covered include interpersonal communication, verbal defusing techniques, body language, and paraphrasing.  
**0.063 to 0.5 Unit**  
**9 to 40 Lecture hours**

**CORR 43505**  
**Team Cell Extractions**

*Prerequisite: PAC 040*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
This course is designed to increase custody officers or other Corrections student's knowledge and skills in the task of cell extractions. The focus will be on risk management, state and federal laws of authority, agency force policy, and the use of special weapons.  
**0.063 to 0.5 Unit**  
**9 to 40 Lecture hours**

**CORR 43506****Tactical Weapons Qualification***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to qualify custody officers or other Corrections students in the use of "less lethal weapons". Weapons included are the 37mm A.R.W.E.N., 37mm stinger shot, stingball grenade, and the MK-46 riot extinguisher. Nomenclature, operation, and safety considerations for each weapon will be covered.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43507****Suicide Prevention***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to address the issue of suicide for correctional officers or other Corrections students as it occurs in custody settings. "At risk" inmates and the events that trigger suicidal situations will be identified. Procedures for prevention, identifying suicide risk, and intervention measures will be discussed.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43508****Squad Tactics and Riot Training***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to provide the custody officer or other Correctional students with information on agency approved emergency response procedures. The topics to be covered include tactical formations in squads, platoon size deployments, special weapons review, riot equipment, and chemical agents.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43509****Special Weapons Training***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Correctional or other interested students with nomenclature, operations, and tactical deployment. An emphasis will be placed on special weapons such as the taser, electronic immobilization device, 37 MM arwen, stingball, and 37 MM stinger shot cartridge.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43510****Senior Supervision***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Correctional or other interested

students with the basic skills required to effectively supervise employees in a custody environment. Topics to be presented are individual values, ethics/integrity, performance evaluations, and incident report preparation.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43511****Basic Report Writing Skills***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed for custody facility employees or other interested students with limited report writing skills. The course will provide students with the basic skills needed to write a report based on the results of an investigation.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43515****Jail Intelligence Gathering***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Corrections or other interested students with the principles and practice of analytical interviewing. The course will provide students with the basic skills needed to develop the interviewer's skills and enhance success during interviews.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43516****Hot Fire***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Corrections or other interested students with the Penal Institution Fire Safety Systems. Demonstrations of burning materials and extinguishing agents will be presented. Students will experience smoke and heat environments and the use of self-contained breathing apparatus. Team work, dangers, and hazards of jail fires will be stressed.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43518****Emergency Procedures***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Corrections or other interested students with agency approved emergency response procedures. Topics covered include tactical formations, disturbance suppression, evacuation plans and related equipment utilization.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43519****Drug and Alcohol Awareness for Supervisors***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize correction supervisors or other interested students with techniques for recognizing symptoms relating to drug and alcohol abuse. Supervisory strategies for creating a safe work environment will be presented.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43524****Narcotics Identification and Investigation***Prerequisite: PAC 040 Advisory:**ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to assist Corrections or other interested students with the development of technical knowledge and procedures for basic narcotics investigation in the custody setting. An emphasis will be placed on drug recognition and the processes by which drugs enter a custody facility.

**0.063 to 0.5 Unit****9 to 40 Lecture hours****CORR 43527****Gangs in the Custodial Environment***Prerequisite: PAC 040**Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to familiarize Corrections or other interested students with the background and future expectations of gang activity within the custodial environment. Topics of identification, behavioral traits, and issues of inmate and officer safety will be presented.

**0.063 to 0.5 Unit****9 to 40 Lecture hours**

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## COUNSELING

### Division of Counseling & Student Development

**COUN 100****Introduction to College Survival***Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment**Transfers to: CSU*

This course is intended for first-time college students in need of developing the knowledge and skills necessary to successfully transition into higher education. Students will learn and apply information in the following areas: vocabulary of higher education, college requirements, policies and procedures, campus support services, and self-management as it relates to higher education. The emphasis in the class will be on first-year retention and success.

**1.5 Units****27 Lecture hours**

**COUN 101**  
**College and Life Success**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)*

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

**3 Units**  
**54 Lecture hours**

**COUN 101A**  
**College and Life Success**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)*

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

**1.5 Units**  
**27 Lecture hours**

**COUN 101B**  
**College and Life Success**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)*

This course provides an exploration of cognitive, psychological, social, and physical factors influencing success in college and in life. Topics include personal responsibility, critical thinking, motivation, self-efficacy, personal awareness, life-long learning, self-management, health and wellness, interpersonal communication in a diverse world, and introduction to career and educational planning. Students will

learn about the purpose, demands, requirements, and support services of higher education including both Rio Hondo College and four year institutions.

**1.5 Units**  
**27 Lecture hours**

**COUN 151**  
**Career Exploration and Life Planning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 3 units credit for COUN 101, 101A, 101B and 151 combined)*

This course will examine student, career and self-development theories to empower students to make effective decisions throughout their lifespan by engaging in the process of career and life planning from a psychological, sociological and physiological perspective. Students will compare and contrast human development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, values, interest, abilities, and personality, labor market trends in a global economy, and successful job search and workplace behaviors.

**3 Units**  
**54 Lecture hours**

**COUN 151A**  
**Career Exploration and Life Planning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will examine student, career and self-development theories to empower students to make effective decisions throughout their lifespan by engaging in the process of career and life planning from a psychological, sociological and physiological perspective. Students will compare and contrast human development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, values, interest, abilities, and personality, labor market trends in a global economy, and successful job search and workplace behaviors.

**1 Unit**  
**18 Lecture hours**

**COUN 151B**  
**Career Exploration and Life Planning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will examine student, career and self-development theories to empower students to make effective decisions throughout their lifespan by engaging in the process of career and life planning from a psychological, sociological and physiological perspective. Students will compare and contrast human

development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, values, interest, abilities, and personality, labor market trends in a global economy, and successful job search and workplace behaviors.

**1 Unit**  
**18 Lecture hours**

**COUN 151C**  
**Career Exploration and Life Planning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course will examine student, career and self-development theories to empower students to make effective decisions throughout their lifespan by engaging in the process of career and life planning from a psychological, sociological and physiological perspective. Students will compare and contrast human development and career theories, decision-making, factors that contribute to college success, life skills, adult workplace competencies, values, interest, abilities, and personality, labor market trends in a global economy, and successful job search and workplace behaviors.

**1 Unit**  
**18 Lecture hours**

**COUN 290**  
**Cooperative Work Experience/  
Internship for Student Services Related  
Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in the Student Services field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Student Services and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Student Services and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours*  
**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours*  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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# DANCE

## Division of Physical Education

### Dance Activity Courses

Dance activity courses may be used in place of P.E. activity courses to fulfill degree requirements.

#### DANC 114 Conditioning and Alignment for the Dancer

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed to provide the physical training and preparation for students interested in Dance, Yoga, and/or Pilates and is suitable for individuals seeking to move with greater efficiency and less pain in everyday activities. Students will learn how to move the body in a safe and effective manner and develop strength, flexibility, proper alignment, agility, balance and coordination. Course work is designed for those wishing to work at a more deliberate pace and in a non-competitive atmosphere, or who are recovering from prior injury.

**1 Unit**  
**54 Lab hours**

#### DANC 150 Introduction to World Dance

*Transfers to: CSU*  
This course is open to all students interested in studying dances representative of different cultures and nationalities. Students will learn dances from multiple cultures and evaluate the similarities and differences of the works within these cultures. Dances will be analyzed based on their salient movement qualities, including Body, Effort, Space, and Shape, taking into consideration historical background and related folklore.

**1 Unit**  
**54 Lab hours**

#### DANC 151 Modern Dance I

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

Modern Dance I is an introductory course for those students who seek technical skill in Modern dance. Emphasis will be placed on developing contemporary technique as well as conditioning the body by improving posture, flexibility, strength, and coordination. Improvisation and creative expression will also be explored. This course may be taken once and repeated three times for credit.

**1 Unit**  
**54 Lab hours**

#### DANC 152 Dance Rehearsal and Performance

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; DANC 151; DANC 159; DANC 251*  
*Transfers to: UC, CSU*

This course provides experience and laboratory exploration in all aspects of dance performance. Students have the opportunity to perform in an evening-length dance concert, work with faculty choreographers and guest artists, and participate as a member of a touring dance ensemble. Students contribute as dancers, production assistants, and costume designers under the supervision and guidance of a faculty choreographer. Productions will be presented for public performance on and off campus.

**3 Units**  
**18 Lecture hours**  
**108 Lab hours**  
**59.4 Other hours**

#### DANC 153 Ballet I

*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an introductory course for those students who seek technical skill in classical ballet. The course will focus on body alignment, traditional steps and combinations, musicality, ballet terminology, and the development of strength and flexibility. Students will also gain knowledge of contemporary influences on ballet.

This course may be taken once and repeated three times for credit.

**1 Unit**  
**54 Lab hours**

#### DANC 154 Jazz Dance I

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

Jazz Dance is a versatile, contemporary and exciting art form that is highly visible on television specials, music videos, commercials, and on the theatrical stage. Jazz Dance I is designed for the beginning student who wants to gain rhythmic understanding, basic terminology and the fundamental physical skills that form the basis of jazz technique. A variety of jazz styles will be introduced, including lyrical, musical theatre, contemporary, and hip-hop. This course may be taken once and repeated once for credit.

**1 Unit**  
**54 Lab hours**

#### DANC 157 Hip-Hop Dance

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

Students will learn various forms of beginning hip-hop dance, including pop and lock, hip-hop funk, syncopations and rhythms. The class will explore the use of space, energy,

rhythm, and improvisation while emphasizing body control, alignment, balance, and use of weight changes. A basic history of hip-hop culture will be discussed. The course appeals to dancers seeking careers in dance, students looking to expand their dance skills, and those wanting an aerobic work-out.

**1 Unit**  
**54 Lab hours**

#### DANC 159 Choreography I

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; DANC 151*  
*Transfers to: UC, CSU*

Choreography I is an introduction to the art and craft of dance composition. The course will focus on the elements of improvisation and experimentation through choreographic exercises. Basic elements of choreography including form, design, motivation, phrasing, gesture, accompaniment, and production basics will be explored. Additionally, critical analysis of dance will be emphasized through lectures, readings and observations of professional dance rehearsals and/or concerts. The class may culminate in the presentation of student choreography or production of a dance concert.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

#### DANC 168 Latin Social Dance

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

Students will learn various types of beginning club and American-style Latin dance forms that may include Salsa, Cha Cha, Samba, Rumba, Merengue, Bachata and Bolero. This course emphasizes the use of proper lead and follow techniques as a form of communication between partners, and develops proper alignment, balance, body awareness, and rhythmic coordination which are necessary parts of appropriate social dancing technique. A basic understanding of partner dancing etiquette will also be addressed. The course appeals to students interested in the social aspect of dance, ones seeking experience in partnering work, and dancers seeking careers in dance.

**1 Unit**  
**54 Lab hours**

#### DANC 179 Dance History

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course introduces the forces and figures which have shaped dance through history. Students will study dance forms from ancient to modern times through readings, films, and class discussions with particular focus on Western concert dance. Comparisons of various dance tech-

niques, theories, and personalities who have contributed to the art of dance will also be covered.

**3 Units**  
**54 Lecture hours**

**DANC 199**  
**Dance Appreciation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This survey course is a multi-cultural exploration of one of the world's oldest and most universal art forms. The history of ballet, jazz, modern, hip-hop, and musical theater dance are investigated through lecture, video and demonstration. In addition, dance will be analyzed in terms of Body, Effort, Space, and Shape and examined for cultural, social and political influences. This course is designed for students who want to gain an understanding of dance and for dance majors who want to broaden their knowledge.

**3 Units**  
**54 Lecture hours**

**DANC 251**  
**Modern Dance II**

*Prerequisite: DANC 151 Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

Modern Dance II is an intermediate course designed for students who wish to further develop the technical and creative skills acquired in Modern Dance I. The course will focus on the biomechanical approach to dance, musicality and fluidity. Additionally, the aesthetic and cultural aspects of modern dance will be emphasized through field observations of a professional dance concert, in-class viewing of videotapes and out of class readings. Students will have the opportunity to perform in an informal showing, collaborate with the advanced choreography students and keep a journal of their technical and creative growth. This course may be taken once and repeated three times for credit.

**1 Unit**  
**54 Lab hours**

**DANC 253**  
**Ballet II**

*Prerequisite: DANC 153 Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

Ballet II is an intermediate level course designed for students who wish to further develop the technical and performance skills acquired in Ballet I. The class includes more advanced technique work at the barre, across the floor, and in center floor combinations. Complex adagio and allegro dance sequences will also be introduced. Students will have the opportunity to perform in an

informal showing or concert setting. This course may be taken once and repeated three times for credit.

**1 Unit**  
**54 Lab hours**

**DANC 254**  
**Jazz Dance II**

*Prerequisite: DANC 154 Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

Jazz Dance II is an intermediate level course designed for students who wish to further develop the technical and performance skills acquired in Jazz Dance I. Additionally, the historical and cultural aspects of Jazz Dance will be emphasized through lectures, readings and observations of a professional dance concert. Students will also have the opportunity to perform in an informal showing or concert setting. This course may be taken once and repeated once for credit.

**1 Unit**  
**54 Lab hours**

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## Directed Studies

### Division of Library & Instructional Support

**299**

#### Directed Study

*Transfers to: UC, CSU*

The course is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. The paperwork shall include the number of units, and hours of study required the arrangements for consultation with the instructor and the work product to be evaluated. (Title V, Section 58051) Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within

a discipline, and may not accumulate more than a total of twelve (12) units college wide.

#### Offered in the Following Disciplines:

Accounting  
Administration of Justice  
Art  
Astronomy  
Biology  
Chemistry  
Child Development  
Education  
Engineering  
English  
Environmental Technology  
Fine Arts  
Fire  
French  
Geography  
Geology  
Health Education  
History  
Humanities  
Journalism  
Literature  
Management  
Mathematics  
Music  
Nursing  
Philosophy  
Physical  
Physics  
Political  
Science  
Radio  
Social Science  
Sociology  
Spanish  
Speech  
Theatre Arts  
Trade and Industrial  
Vocational Nursing  
**1 to 3 Units**  
**48 to 144 Hours**

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## DRAFTING - See ENGINEERING TECHNOLOGY

### Division of Career & Technical Education

**DRAF 299**

#### Directed Study: Drafting

*Transfers to: UC, CSU*

Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## ECONOMICS

### Division of Behavioral & Social Sciences

#### ECON 101 Principles of Macroeconomics

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 070 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an introductory course in which students learn to describe and analyze the performance and policies of national economic systems, with an emphasis on the US economy. It is intended for Economics or Business majors as well as to satisfy General Education requirements. Topics include production possibilities and tradeoffs; comparative economic systems; functions of government; national income and employment; business cycles; money and banking; monetary and fiscal policy; comparative advantage and trade policy; economic growth and stability; and income distribution and poverty.

**3 Units**  
**54 Lecture hours**

#### ECON 101H Principles of Macroeconomics

*Prerequisite: ENGL 101 with a grade of "C" or better; MATH 070 or appropriate assessment*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is an introductory course in which students learn to describe and analyze the performance and policies of national economic systems, with an emphasis on the US economy. It is intended for Economics or Business majors as well as to satisfy General Education requirements. Topics include production possibilities and tradeoffs; comparative economic systems; functions of government; national income and employment; business cycles; money and banking; monetary and fiscal policy; comparative advantage and trade policy; economic growth and stability; and income distribution and poverty.

**3 Units**  
**54 Lecture hours**

#### ECON 102 Principles of Microeconomics

*Prerequisite: MATH 070 or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is an introductory course in economic analysis of markets, intended for Economics and Business majors as well as to satisfy General Education requirements. It may be taken prior to Econ 101. Students will learn how markets work to coordinate consumers and producers in an economy, various causes of the failure of free markets and policies used to correct or regulate market behavior.

**3 Units**  
**54 Lecture hours**

#### ECON 102H Principles of Microeconomics

*Prerequisite: ENGL 101 with a grade of "C" or better; MATH 070 or appropriate assessment*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is an introductory course in economic analysis of markets, intended for Economics and Business majors as well as to satisfy General Education requirements, and may be taken by any student who has completed English 101 with a "C" or better. It may be taken prior to ECON 101. Students will learn how markets work to coordinate consumers and producers in an economy, various causes of the failure of free markets and policies used to correct or regulate market behavior. Students will do a research project on an actual economic policy or a theoretical view.

**3 Units**  
**54 Lecture hours**

#### ECON 106 Economics of Contemporary Issues

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfer to: UC, CSU*

The course is an introductory course designed for students interested in exploring how the tools of economics are used to analyze and debate critical issues facing society today. Economics will be applied to issues such as: health care, trade deficits, social security, crime, pollution, alternative energy, income inequality, global development, housing and homelessness, and immigration.

**3 Units**  
**54 Lecture hours**

#### ECON 135 International Political Economy

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is an introductory course designed for students interested in economics and political science, as well as anyone interested in the global interconnectedness of the world economy. The course focuses

on the relations between the political and economic systems within the global economy. The course covers the impact of political decisions on world economies and international organizations. Further emphasis is placed on a comparison-contrast of various national economies. Geographic areas of concern include Africa, Europe, the Pacific Rim, the Middle East, Latin America, Russia, China, and the United States. The course is cross-listed as Economics 135 and Political Science 135. Credit is given in either area, not both.

**3 Units**  
**54 Lecture hours**

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## EDUCATION

### Division of Behavioral & Social Sciences

#### ED 090 Tutorial Skills

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course provides preparation for successful peer tutoring at the community college level. Instruction will focus upon tutoring principles, techniques, and materials, study skills strategies, communication skills, and learning differences. This course is intended for tutors in the Learning Assistance Center and other peer tutoring programs at Rio Hondo College.

**1 Unit**  
**18 Lecture hours**

#### ED 110 Introduction to Teaching

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed to introduce students to the profession of teaching through lecture and observation of K-12 classrooms and public schools. The major aspects of the teaching profession will be examined, the diversity of the public school system will be discussed, and students will gain experience in all three levels of the K-12 system. This course is intended for students considering a career in teaching. Two hours of off-site classroom observations per week to be arranged.

**3 Units**  
**54 Lecture hours**

#### ED 120 Tutoring Reading in the Elementary School

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course provides preparation for a successful tutoring experience in reading at the elementary school level. Instruction will focus upon tutoring principles, stages of

reading acquisition from pre-kindergarten through upper elementary school levels as well as materials, approaches, and activities that are appropriate for tutoring learners at these various stages of development. This course is designed for those students who intend to pursue a career in teaching at the elementary school level.

**1 Unit**  
**18 Lecture hours**

**ED 130**  
**Tutoring Reading in the Schools:  
Seminar and Field Work**

*Prerequisite: READ 022 or appropriate assessment*

*Prerequisite/Corequisite: ED 120*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment*  
*Transfers to: CSU*

This course provides the student with supervised experience tutoring reading in an elementary-educational setting (grades K-6). Participants will apply their knowledge of the reading process and tutorial skills in tutoring sessions with children at an off campus site. A weekly class meeting provides the academic component to the tutoring experience, reinforcing and expanding the application of concepts gained in the prerequisite / corequisite course. This course partially fulfills the requirements for students participating in the AmeriCorps grant program.

**2 Units**  
**18 Lecture hours**  
**225 Lab hours**

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## EDUCATIONAL DEVELOPMENT

Division of Disabled Students  
Program & Services

**EDEV 020**  
**Literacy Skills I**

This is a beginning course designed for students with learning disabilities who have limited reading skills. Students will learn the meanings and the pronunciations of new words through the use of phonics. The class will cover vowel sounds, consonant sounds, word syllables, and word structure. Students practice strategies needed to encode and decode words to be successful readers. This is a non-degree credit course and is offered on a pass/no pass basis.

**3 Units**  
**54 Lecture hours**

**EDEV 021**  
**Literacy Skills II**

*Prerequisite: Appropriate skill level demonstrated through the RHC Placement Process*  
*Corequisite: Concurrent enrollment in EDEV 021L*

This course is designed for students with learning disabilities who need to improve basic reading skills such as

dictionary usage, vocabulary development, and reading comprehension. Students practice specific learning strategies needed to compensate for diverse learning styles or deficits.

This is a non-degree applicable course and is offered on a pass/no pass basis. All students are required to concurrently enroll in the one-unit reading lab, EDEV 021L.

**3 Units**  
**54 Lecture hours**

**EDEV 021L**  
**Literacy Skills II Lab**

*Prerequisite/Corequisite: EDEV 021*

This course is a skills class designed for students with learning disabilities who need to improve reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks designed to complement the activities of their reading course. Students are required to be concurrently enrolled in EDEV 021, Literacy Skills II.

**0.5 Unit**  
**27 Lab hours**

**EDEV 022**  
**Basic Arithmetic**

This course is a review of the basic principles and skills of arithmetic. The general areas of review are operations of whole numbers and fractions, operations with decimals and proportional thinking, percent problems and applications to percents. This course is designed for students with special needs to master basic computational skills, develop problem solving and arithmetic skills, and acquire learning strategies to allow them to function successfully upon matriculating into upper level mathematics courses. This is a non-degree applicable course.

**3 Units**  
**54 Lecture hours**

**EDEV 024**  
**Assessment for Learning Disabilities**

*Advisory: Appropriate placement through the Learning Disabilities Assessment Process*

This course provides intensive diagnostic learning assessment for students with learning disabilities. A profile will be developed through cognitive and achievement assessment which will emphasize specific academic and learning modality strengths and weaknesses. Students will develop a Student Education Contract to help them improve in reading, writing, spelling, computation, and learning skills as well as plan for future educational support. Recommended for all students who suspect they may have a learning disability. This is a non-degree credit course.

**1 Unit**  
**54 Lab hours**

**EDEV 025**  
**Adaptive Computer Technology**

This course helps disabled students to utilize adaptive computer hardware and software. Material will be provided which is relevant for each

student's needs. Emphasis will also be placed on knowledge of appropriate compensatory strategies and familiarity with disability equipment. Documentation of a verifiable disability needs to be provided to the DSP&S office to enroll in the course. This is a non-degree credit course.

**1 Unit**  
**54 Lab hours**

**EDEV 026**  
**Consumer Math**

This course is specifically designed for the Developmentally Delayed Learner (DDL) and students with special learning needs who would like to apply their math abilities to the workplace and everyday life. Home and money management; banking/obtaining credit; math skills in the workplace; use of calculators; time cards/taxes and benefits; and basic reading, writing and math across the curriculum are emphasized in the course. Guest speakers will be invited and student projects will reflect the students' conceptualization and ability to put into practice what is learned. This is a non-degree credit course.

**3 Units**  
**54 Lecture hours**

**EDEV 027**  
**Strategies for Career Success**

*Prerequisite: Students must meet measured appropriate adaptive behaviors that meet California Community Colleges Title V regulations for DSP&S*  
*Corequisite: EDEV 027L*

This course is designed specifically for the Developmentally Delayed Learner (DDL) and students with special learning needs to prepare them for employment. Emphasis is on developing skills in the areas of goal setting, career assessment inventory, career awareness, career exploration, choosing a career, career preparation, socialization, utilizing community resources and appropriate grooming and hygiene. This is a non-degree credit course and is offered on a pass/no pass basis.

**3 Units**  
**54 Lecture hours**

**EDEV 027L**  
**Strategies for Career Success Lab**

*Prerequisite/Corequisite:  
EDEV 027*

This course is designed specifically for the Developmentally Delayed Learner (DDL) population and students with special learning needs. The laboratory is a work experience program with minimum supervision. Students are placed in on- and off-campus work sites for 4 hours per week. They will receive on-the-job training with close supervision at the various locations - 4 weeks at each job site. This is a non-degree credit course.

**1 Unit**  
**54 Lab hours**

**EDEV 029****Independent Living Skills**

This course is designed specifically for the Developmentally Delayed Learner (DDL) population and students with special learning needs. Essential independent living skills are emphasized. Major topics focus on the how to live and work issues—from maintaining a healthy body and a safe home to finding and keeping a job. Desired outcome is for the student to develop the necessary skills to gain greater independence within/outside the family structure.

**3 Units****54 Lecture hours****EDEV 030****English Skills***Corequisite: EDEV 030W*

This course is designed for students with learning disabilities who need to improve basic writing skills. A process approach to writing is integrated with reading assignments to provide a variety of writing experiences. Students practice strategies to develop thinking, language, and writing skills. This course is the beginning level of composition; it prepares students for success in English 035 or 101. This is a non-degree credit course and is offered on a pass/no pass basis. Students are required to concurrently enroll in EDEV 030W.

**3 Units****54 Lecture hours****EDEV 030W****English Skills Workshop***Corequisite: EDEV 030W*

This course is designed for students with learning disabilities who need to improve basic writing skills. A process approach to writing is integrated with reading assignments to provide a variety of writing experiences. Students practice strategies to develop thinking, language, and writing skills. This course is the beginning level of composition; it prepares students for success in English 035 or 101. This is a non-degree credit course and is offered on a pass/no pass basis. Students are required to concurrently enroll in EDEV 030W English Skills Workshop. Students must complete 54 lab hours per semester. The class will meet for 28 hours per semester on campus. The remaining credit hours will be completed by arrangement with the instructor.

**1 Unit****54 Lab hours****EDEV 031****Acquired Brain Injury Orientation***Corequisite: Concurrent enrollment in EDEV 031L*

This course is designed to orient students with ABI to the structure, goals, and services of the Acquired Brain Injury Program at Rio Hondo College. The course serves as an introduction to cognitive retraining and provides systematic instruction for increased attention and concentration skills. Course activities are designed to refine problem-solving

and improve memory capabilities. Development of interpersonal and psychosocial skills which are necessary to function successfully in work, social, and educational environments will be emphasized. Students are required to concurrently enroll in EDEV 031L ABI Orientation Lab. Students may repeat this course to improve skills through further instruction and practice. This course may be taken once and repeated three times for credit.

**1 Unit****54 Lecture hours****EDEV 031L****Acquired Brain Injury Orientation Lab***Corequisite: Concurrent enrollment in EDEV 031*

This course utilizes computer assisted instruction to improve cognitive skills in attention, memory, and reasoning in students with acquired brain injuries. Emphasis is on reinforcing associated learning strategies and techniques specific to each student's cognitive strengths. Students are required to concurrently enroll in EDEV 031 Acquired Brain Injury Orientation. Students may repeat this course to improve skills through further instruction and practice.

This course may be taken once and repeated three times for credit.

**1 Unit****54 Lab hours****EDEV 101****College and Career Exploration***Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This course is designed to facilitate a student's acquisition of the necessary information and personal awareness for a successful college experience. Special strategies will be utilized to particularly benefit the student with specific learning difficulties. The value of higher education will be explored with particular emphasis on the policies and procedures of Rio Hondo College and four year institutions. Special attention will be directed toward the understanding of "Certificate Programs", "Associate Degrees", "General Education" and "Transfer" requirements. Students will investigate the various support services available at Rio Hondo and develop a working knowledge of how a student may benefit from such services.

**3 Units****54 Lecture hours****EDEV 134****Study Techniques***Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*  
This is a course in college study skills which also addresses the needs of students identified with special learning needs. Students are taught specific techniques, principles, and strategies which enable them to effectively acquire, integrate, store, and

retrieve information and thus become more successful students. Topics in this course include in-depth instruction in critical reading and thinking, time management, memory techniques, note-taking, test-taking, creativity, and communication. Students are encouraged to utilize appropriate college resources.

**3 Units****54 Lecture hours**

## ELECTRONICS

**Division of Career & Technical Education****ELEC 041****High Reliability Electronic Fabrication***Advisory: ENGL 030 or ENLA 034 or appropriate assessment; MATH 030 or appropriate assessment*

This course introduces the student to the techniques required for the use of hand tools in the building and maintenance of electronics equipment. Particular attention is devoted to soldering and other assembly operations which must frequently be performed by electronic technicians.

**3 Units****36 Lecture hours****54 Lab hours****ELEC 050****Introduction to the Electrical Industry***Advisory: READ 023 or appropriate assessment*

This introductory course is for a general audience and for those contemplating a career in the powerline (electrical) industry. Students will become acquainted with the basic concepts of terminology and will receive hands-on experience with components and measuring equipment.

**2 Units****27 Lecture hours****27 Lab hours****ELEC 051****Electrical Power Distributions Systems***Prerequisite: ELEC 050**Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This is an introductory course for linemen and those interested in a career in the power utility industry. This is the second class of a five class program designed to provide the student with knowledge and skills with electrical power distribution systems. This course explains how electricity is generated and delivered to customers. Course content includes safety, basic electrical theory of generation, transmission, transformers, regulators, fuses, meters, and applied mathematics to illustrate basic electricity relationships of components in an electrical power distribution system.

**3 Units****45 Lecture hours****27 Lab hours**

**ELEC 052****Distribution of Electrical Power**

*Prerequisite:* ELEC 051

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is an introductory course for linemen and those interested in a career in the power utility industry. This is the third class of a five class program designed to provide the student with knowledge and skills with electrical power distribution systems. This course further explains the distribution of electrical energy, starting with the various methods of generation, through a more extensive look into various transmission systems, into the rural and urban substations, and ending at the customer's service entrance. Course content includes safety, electrical theory of generation, transmission, distribution, substations, transformers, and applied mathematics related to the components of an electrical power distribution system.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**ELEC 060****D.C. and A.C. Fundamentals**

*Advisory:* READ 023 or appropriate assessment

This introductory course in D.C. & A.C. electricity is for general audience and for those contemplating a career in the powerline (electrical) industry. Course content includes basic theory, resistance, capacitance, inductance, simple D.C. & A.C. circuits, transformers, measuring instruments, batteries, motors & generators.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**ELEC 061****Fundamentals of Wire and Cabling**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

This course will present the principles and practices of copper cable wiring technology and includes instruction in the design, installation, and maintenance of copper wiring systems for intelligent control systems, lighting and appliance control devices, communication, and networking. Also includes instruction in household and institutional power wiring. This course is designed for students wanting to work in the Home Technology Service industry.

**2 Units**

**27 Lecture hours**

**27 Lab hours**

**ELEC 062****Fundamentals of Fiber Optics**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

This course presents the principles and practices of fiber optics and optoelectronic technology and includes instruction in the design, installa-

tion, and maintenance of fiber optic cabling control systems and optoelectronic control systems for computer communication and networking systems. This course is designed for students wanting to work in the Home Technology Service industry.

**2 Units**

**27 Lecture hours**

**27 Lab hours**

**ELEC 063****Fundamentals of Wireless Communication**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

This course presents the principles and practices of wireless communication technology and includes instruction in the design, installation, and maintenance of wireless communication technology network systems. Emphasis is placed on system reliability, security, and cost containment concerns. This course is designed for students wanting to work in the Home Technology Service industry.

**2 Units**

**27 Lecture hours**

**27 Lab hours**

**ELEC 064****Home Technology Integration Technologies**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

This course presents the principles and practices of installing and maintaining home technology. Students are exposed to home lighting controls, computer networking, home security, home entertainment systems including video, data, and voice, heating ventilation and air conditioning control systems, and home systems integration. This course prepares the student for Home Technology Industry certification and is designed for students wanting to work in the Home Technology Service industry.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ELEC 070****Applied Telecommunications Technology**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is an introductory course that will examine the theory behind present day wireless (cellular) telecommunications systems which will include an in-depth analysis of the design and installation of these systems. The course is intended for students interested in a career in the wireless telecommunications industry. Topics will include: mobile devices networks, antenna orientation, base station system, and the operation and support system

associated with the wireless systems. Also presented are topics on environmental effects, governmental impact and history of wireless telecommunications.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**ELEC 071****Mobile and Wireless Communications**

*Prerequisite:* ELEC 070

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

This is the second class of a five class program that will further examine the theory behind present day wireless (cellular) telecommunications systems. This course is designed to provide students with information and skills associated with the wireless (cellular) telecommunications industry. The course is intended for students that are interested in a new career or are currently working in the wireless telecommunications industry. Topics will include: Wireless standards and protocols and the critical issues of compatibility, internetworking, and voice/data convergence, design and integration of WCDMA/UMTS, CDMA2000, and SCDMA into existing cellular/PCS networks. Also presented are topics on RF propagation, 3G and 4G networks, and the future of wireless telecommunications.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

**ELEC 101****Basic D/C Electronic Circuits and Devices**

*Prerequisite:* MATH 030 or MATH 030D or appropriate assessment, or TCED 080

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course is an introduction to the field of Direct Current (D/C) electricity/electronics. Emphasis is on the theory of operation, physical properties and characteristics of DC electrical/electronic circuits and devices. Students will analyze circuits and solve problems utilizing basic network analysis methods. The course will instruct students on the arrangement of circuit diagrams, proper identification of circuit/device symbols, and use of wiring schematics. Laboratory work provides experience with the design and test of basic electrical circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ELEC 102**  
**Basic A/C Electronic Circuits and Devices**

*Prerequisite: MATH 030 or 030D or appropriate assessment, or TCED 080*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to the field of Alternating Current (A/C) electricity / electronics. Emphasis is on the theory of operation, physical properties and characteristics of AC electrical / electronic circuits and devices. Students will analyze circuits and solve problems utilizing basic network analysis methods. The course will instruct students on the arrangement of circuit diagrams, proper identification of circuit / device symbols, and use of wiring schematics. Laboratory work provides experience with the design and test of basic electrical circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical / electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ELEC 105**  
**Computer Simulation and Fabrication of Electronic Circuits**

*Prerequisite: ELEC 101*  
*Transfers to: CSU*

This course provides an introduction to the use of computer software in the simulation and fabrication of electronic circuits and printed circuit boards. It is intended for students in electronics technology as well as those currently working in the electronics industry. Using a popular educational version of circuit simulation software, the Electronics Workbench TM program suite, students will be introduced first to concepts of analog and digital circuit simulation. The modeled circuits are then processed. Fabricated and ultimately tested as prototype circuit boards. Students will learn to use a miniature computer controlled circuit board mill to produce the prototypes.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

**ELEC 108**  
**Introduction to Solid State Devices and Circuits**

*Prerequisite: ELEC 101 and 102*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to solid state devices used in the field of electronics. Emphasis is on the theory of operation, methods of fabrication, physical properties and characteristics of semiconductor devices and circuits. Devices considered are diodes, BJT and FET transistors,

special diodes, Thyristors (SCR), IC's (digital and analog), typical applications of each device in amplifier, regulator, oscillator, timer and digital circuits. Students will analyze circuits and solve problems utilizing basic network analysis methods. Laboratory work provides experience with the design and test of basic solid state device circuits including signal tracing and troubleshooting, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical / electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ELEC 109**  
**Linear, Analog Circuits and Devices**

*Prerequisite: ELEC 101 and 102*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course focuses on linear analog circuits and devices used in the field of electronics. Emphasis is on the theory of operation, methods of fabrication, physical properties and characteristics of operational amplifiers, other discrete circuits and external circuitry. This course builds on the foundation laid in Electronics 108, continuing the study of solid state devices and circuits with emphasis on the Integrated Circuit (IC) and applications. Students will analyze circuits and solve problems utilizing basic network analysis methods. IC device characteristics are explored. Input / output impedance, drift, offset, bias current, Gain, Frequency Response and simple modeling are among the topics considered. Use of device data sheets and application notes will be introduced to provide training in the selection of devices for specific purposes. Laboratory work provides experience with the design and test of basic solid state device circuits including signal tracing and troubleshooting, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical / electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ELEC 111**  
**Introduction to Digital Electronics**

*Prerequisite: ELEC 101 and 102*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to digital electronic principles common to all areas of electronics. The course will emphasize study of number systems and representations such as

Binary codes, Hexadecimal codes and Boolean algebra. Analysis and design of combinational and sequential Logic Circuits, Gates, Adders, TTL: small and medium scale integrated devices, programmable logic and simulation of digital circuits and CMOS, ECL families will be covered. Laboratory work will also provide experience with the design and test of basic digital circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical / electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ELEC 208**  
**Advanced Solid State Devices and Circuits**

*Prerequisite: ELEC 108*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is a continuation of the study of solid state devices used in the field of electronics presented in the introductory course ELEC 108. Emphasis is on the theory of operation, physical properties and characteristics of advanced semiconductor devices and circuits. Devices considered are advanced design transistors, SCRs and other Integrated Circuits-IC's (digital and analog), typical applications of each device in inverters, converters, and switching power supplies. Students will analyze circuits and solve problems utilizing basic network analysis methods with emphasis on advanced biasing, cascading, coupling and phase shifting. Laboratory work provides experience with the design and test of advanced solid state device circuits including signal tracing and troubleshooting, use of schematic diagrams and common laboratory equipment. This course is for students that are contemplating a career in the electrical / electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ELEC 211**  
**Advanced Digital Electronics**

*Prerequisite: ELEC 111*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment*  
*Transfers to: CSU*

This course is a continuation of introduction to electronic digital principles common to all areas of electronics. Building on the foundations covered in ELEC 111, emphasis will be placed on the study of various types of Counters, A/D and D/A Converters, I-O Devices, Memories and an introduction to Micro Computers.

Through laboratory work, students learn applications by constructing various circuits and devices. Advanced analysis and design of combinational and sequential Logic Circuits, Gates, Adders, TTL: small and medium scale integrated devices, programmable logic and simulation of digital circuits and ECL families will be covered. Laboratory work will also provide experience with the design and test of basic digital circuits, use of meters, schematic diagrams, oscilloscopes, and common laboratory equipment. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

#### **ELEC 240**

##### **Microprocessors and Microcomputing**

*Prerequisite:* ELEC 211

*Transfers to:* CSU

This course will provide a fundamental knowledge of the general architecture of microcomputers. Emphasis is on the study of organization and structuring of the major hardware and software components of computers which includes, the CPU and some of the I/O devices used to interface the CPU to various peripheral devices. It considers the physical aspects of information transfer and control within a digital computer. Network architecture, communication protocol, as well as micro-programming instruction sets and assembly language programming are also emphasized. Laboratory exercises will focus on construct and deconstruct of a basic computer, along with test and troubleshooting of critical functions. This course is for students that are contemplating a career in the electrical/electronics industry and is part of the preparation leading to an A. S. Degree or a Certificate in Electronics Technology.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

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## **ELECTRONICS/ ELECTRIC UTILITY TECHNOLOGY**

**Division of Career &  
Technical Education**

#### **EUT 110**

##### **Electrical Utility Technology I**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ELEC 050  
*Transfers to:* CSU

This is an introductory course that will examine the theory behind present day utility energy systems. This course provides an orientation

in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. Topics include basic mathematical computations, including trigonometry fundamentals, electron theory and the fundamentals of magnetism. Students will combine electrical theory with laboratory and practical applications in the course of study. This course is intended for students that are contemplating a career in the electrical utility industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **EUT 112**

##### **Electrical Utility Technology II**

*Prerequisite:* EUT 110

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ELEC 050  
*Transfers to:* CSU

This course involves the study of the power distribution and line construction industry. Topics include methods of producing electricity, A.C. and D.C. meters and circuitry and electric batteries. Students will also learn about Ohm's Law, Kirchhoff's Law, and electromagnetic induction. This course is intended for students that are contemplating a career in the electrical utility industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **EUT 114**

##### **Electrical Utility Technology III**

*Prerequisite:* EUT 112

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ELEC 050  
*Transfers to:* CSU

This course is a study of alternating current circuits, A.C. and D.C. motors and generators, pole and overhead construction, and transformers and voltage regulators. Topics include schematics, shunt and series capacitors and safety issues outlined by the Occupational Safety and Health Act (OSHA). Calculating power used by electrical circuits is also covered. This course is intended for students that are contemplating a career in the electrical utility industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **EUT 116**

##### **Electrical Utility Technology IV**

*Prerequisite:* EUT 114

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ELEC 050  
*Transfers to:* CSU

This course is a continuation of pole and overhead line construction. Topics covered include state safety orders for line construction and maintenance, transmission and distribution systems and conductors and electrical systems faults.

Students will also learn about short circuits, system protective concepts and how to identify control circuits from wiring diagrams. This course is intended for students that are contemplating a career in the electrical utility industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **EUT 118**

##### **Electrical Utility Technology V**

*Prerequisite:* EUT 116

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment; ELEC 050  
*Transfers to:* CSU

This course covers advanced theory of electrical distribution lines and systems. Other topics include phasing, system groundings, substations and the use of electrical instruments. Students will also learn how to connect transformers in accordance with the state code. Usage of fusing tables and reference tables, including technical symbols are also covered. This course is intended for students that are contemplating a career in the electrical utility industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

#### **EUT 120**

##### **Utility Pole Climbing Techniques**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment

*Transfers to:* CSU

This course is designed to provide instruction on climbing a utility pole safely using the latest OSHA fall resistant requirements. At the completion of this course, students will be able to safely ascend and descend a utility pole using gaffs and extension ladders. This course provides an orientation in the power distribution and line construction industry. Basic electrical principles and safety on the job are emphasized. This course is intended for students that are contemplating a career in the electrical utility industry.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

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## **EMERGENCY**

## **MEDICAL TECHNICIAN**

**Division of Public Safety**

#### **EMT 093**

##### **Emergency Medical Technician**

*Prerequisite:* FTEC 121

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; BIOL 125

This course is designed to certify students as California State Emergency Medical Technicians and gain employment as an ambulance driver

or ambulance attendant. After successful completion of this course, students will be authorized to take the National Registry EMT examinations and then request certification as an EMT through the Los Angeles County Department of Health or other local EMS accrediting agencies. Topics discussed include pre-hospital care terminology, cardiovascular emergencies, pre-hospital childbirth, communicable disease, extrication tools and equipment, automatic external defibrillation and an understanding of the Emergency Medical System. Students must pass a background check and EMT medical physical with a 10-panel drug screen.

**8 Units**  
**117 Lecture hours**  
**81 Lab hours**

**EMT 0931**  
**Emergency Vehicle Operations**

*Prerequisite: READ 023 or appropriate assessment; Possession of a class "C" license.*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to certify students as driver operators for both Class "B" commercial driver's license and for ambulance drivers certification in California. A Class "B" commercial drivers permit will be obtained while in this course and a Class "B" commercial driver's license may be obtained prior to completion of this course. Pre-Trip inspection, driving skills and a driving test is part of this course. Students will complete certification through the California State Fire Marshal's office in Driver Operator 1A and 1B. A physical is required to meet California State standards in regards to licensing.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**EMT 290**  
**Cooperative Work Experience / Internship for Emergency Medical Technicians**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in the Emergency Medical Technician field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Emergency Medical Technician and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology or EMS (emergency medical services) and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

## ENGINEERING

### Division of Mathematics & Sciences

**ENGR 217**  
**Electric Circuit Analysis**

*Prerequisite/Corequisite: MATH 270 and PHY 213 (both with a grade of "C" or better)*

*Transfers to: UC, CSU*

This course is for students who intend to pursue a major in engineering. The course is the study of basic circuit analysis techniques including Ohm's law, Kirchhoff's laws, mesh-current and node-voltage method, Thévenin and Norton's equivalent circuits, transient and steady-state responses of passive circuits, and operational amplifiers. This course also includes sinusoidal steady-state analysis of AC circuits, AC power calculation, three-phase circuits, mutual inductance, frequency response, and resonance.

**3 Units**  
**72 Lecture hours**

**ENGR 235**  
**Engineering Mechanics: Statics**

*Prerequisite: PHY 211 with a grade of "C" or better*

*Prerequisite/Corequisite: MATH 191 with a grade of "C" or better*

*Transfers to: UC, CSU*

This course is for students who intend to pursue a major in engineering and provides an overview of the effect of two and three dimensional force systems on particles and rigid bodies under equilibrium conditions. Topics covered include distributed forces and determination of centroids, analysis of trusses, frames and machines, internal forces and moments, systems involving friction, and method of virtual work and equilibrium.

**3 Units**  
**72 Lecture hours**

## ENGINEERING TECHNOLOGY

### Division of Career & Technical Education

**ENGT 101**  
**Introduction to Technical Drawing & Graphics**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This is a basic course in technical drawing and graphics for students

with no previous drafting skills or training. The course is designed for students who wish to pursue training in fields and careers related to architecture, civil and engineering design drafting. Practical application will be provided with the tools, techniques, standards, and practices used in the industries that need technical drawings and graphics.

**3 Units**  
**45 Lecture hours**  
**54 Lab hours**

**ENGT 105**  
**Architectural and Technical Freehand Sketching**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course is designed to develop skill in freehand drawing as used by the design professionals in both architectural and technical applications. Using pen, pencil, marker, basic principles of proportion, composition and freehand techniques, students will prepare technical sketches to industry standards, in isometric, oblique, perspective and orthographic. Design considerations will also be introduced for various projects involving preliminary design sketches. This course is open to all students who wish to develop freehand drawing skills. It is required for all students working towards a degree or certificate in the Architecture and Engineering Design Drafting program.

**2 Units**  
**27 Lecture hours**  
**36 Lab hours**

**ENGT 122**  
**Engineering Design Graphics**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting*

*Transfers to: UC, CSU*

This course is an introduction to graphics as used in engineering design and the systematic use of graphic solutions and descriptive geometry to solve three dimensional engineering problems involving space, points, planes and lines. Technical drawing using I.S.O. and A.N.S.I. standards including geometric dimensioning and tolerancing, will be stressed with a conceptual design project and preparation of working drawings. This course is required for all students working towards a degree or certificate in the Architecture and Engineering Design Drafting program. The course is also recommended for students interested in transferring to Schools of Engineering.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 131**  
**Engineering and Manufacturing Applications of Technical Drawing**  
**Prerequisite:** ENGT 122

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 150 or ENGT 270, or CADD experience

*Transfers to:* CSU

This intermediate course is the study of technical drawing as used in manufacturing applications of design and engineering technology. This course is for all students in areas of study related to Engineering, Technical Drafting, Design and Computer Graphics. The course incorporates orthographic projection, introduction to tool design, and applications of descriptive geometry through layouts and developments. The course will also cover ANSI Y14.5, precision dimensioning, geometric tolerancing, manufacturing terminology and processes. Lab exercises and drawings will be used to reinforce lecture and demonstration concepts.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 138**  
**Engineering Careers & Applications**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course is for all students interested in the career field of Engineering Design Drafting. Engineering Careers and Applications will explore the career opportunities and training requirements in the field of engineering and engineering technology. Topics will include the history of engineering, careers in engineering, ethics and responsibilities of the engineer, communicating and problem solving.

**2 Units**  
**27 Lecture hours**  
**36 Lab hours**

**ENGT 150**  
**AutoCAD for Basic CADD Applications**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting

*Transfers to:* CSU

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of AutoCAD software will be provided. Students will produce 2D orthographic, isometric, and basic 3D model solutions of mechanical and architectural applications.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 170**  
**MicroStation for Basic CADD Applications**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting

*Transfers to:* CSU

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of MicroStation software will be provided. Students will produce 2D orthographic and basic 3D model solutions of mechanical and architectural applications.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 200**  
**Intermediate AutoCAD for Design and Production**

*Prerequisite:* ENGT 150 with a grade of "C" or better

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting

*Transfers to:* CSU

This course is for students pursuing degrees or certificates in the Architecture and Engineering Design Drafting Program and for those who wish to enhance their AutoCAD skills for workplace productivity. The course is an intermediate application study in computer aided design, drafting, and graphics using the latest revisions of AutoCAD. Combined with previously learned technical drafting conventions and basic AutoCAD operational skills, students will use AutoCAD to produce detailed drawings that involve model-space and paperspace, 2D and 3D objects, block attributes and viewport scales. Emphasis will be placed on working with multiple drawing files using external files to create mechanical, architectural and civil projects.

**3 Units**  
**45 Lecture hours**  
**54 Lab hours**

**ENGT 231**  
**Technical Product Design and Presentation**

*Prerequisite:* ENGT 122; ENGT 150  
*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

*Transfers to:* CSU

This intermediate course is the study of technical presentation drawing, product proposal and design including electro-mechanical packaging, orthographic and axonometric illustration for presentation and assembly pictorial views. Using computer aided design, manual draft-

ing, and graphic techniques, students will apply previously learned skills to develop graphic illustrations of mechanical applications for use in catalogs, manuals and engineering support presentation documents. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 250**  
**Parametric Modeling 3D Applications for Mechanical Design**

*Prerequisite:* ENGT 150

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course presents advanced applications of 2D and 3D Computer Aided Design Drafting (CADD) and an introduction to parametric modeling and rapid prototyping utilizing the latest releases of Autodesk Inventor series, SolidWorks, and other parametric modeling software to produce solutions for mechanical applications. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics, emphasizes CADD generated three dimensional graphics using wire frame, surface modeling, and parametric solids.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 265**  
**Pressure Piping Design**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 150 or ENGT 170 or industry experience in CADD applications

*Transfers to:* CSU

This course is for those students with CADD experience who are interested in the career field of pressure piping design engineering. This course presents the preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is information and work dealing with the location, installation, operation, and maintenance of pumps, steam turbines, compressors, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ENGT 266**  
**Pressure Piping Applications**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 150 or ENGT 170 or industry experience in CADD applications; ENGT 265

*Transfers to:* CSU

This course is for all students interested in the career field of pressure piping design engineering.

This course presents the advanced preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is advanced information and layout work dealing with the location, installation, operation of pumps, steam turbines, compressors, vertical vessels, horizontal vessels, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.  
**3 Units**  
**36 Lecture hours**  
**72 Lab hours**

**ENGT 270**  
**Solid Works for 3D Modeling and Prototype Applications**  
*Prerequisite: ENGT 150 or ENGT 170*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
 This course presents an intensive study in 3D computer graphics and CADD (Computer Assisted Design and Drafting) utilizing the latest release of SolidWorks Software. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Students will produce three dimensional parametric computer generated virtual models incorporating mechanical design refinements. The course emphasizes high technology skills which are necessary to function as a design professional to apply 3D design graphics technology to specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling and illustration. Students will be introduced to a variety of means to directly produce prototype models from CADD generated solid geometry.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 280**  
**Advanced MicroStation for CADD & BIM Applications (Same as ARCH 280)**  
*Prerequisite: ENGT 170 with a grade of "C" or better, or verifiable work experience and proficiency in MicroStation XM or V8i*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101 or two years of high school drafting*  
*Transfers to: CSU*  
 This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students

studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.  
**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**ENGT 290**  
**Cooperative Work Experience/ Internship for Drafting Related Fields**  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
 This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of drafting and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".  
**Student Unpaid Internship:**  
 1 Unit/60 hours; 2 Units/120 hours;  
 3 Units/180 hours; 4 Units/240 hours  
**Student Paid Internship:**  
 1 Unit/75 hours; 2 Units/150 hours;  
 3 Units/225 hours; 4 Units/300 hours  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

ing their writing and language skills through individual conferences with composition instructors. Students will complete and revise assignments that complement the goals and objectives of ENGL 030. All ENGL 030 students must enroll in this course. This course may be repeated one time for credit. This is a non-degree applicable course offered on a pass-no pass basis.  
**0.5 Unit**  
**27 Lab hours**

**ENGL 035**  
**Intermediate Composition for Developing Writers**

*Prerequisite: ENGL 030 or ENLA 034 with a grade of "Pass" or appropriate assessment*  
*Corequisite: ENGL 035W*  
 This is a composition course which trains students in the clear and logical communication of ideas and information. Students will learn to relate ideas and information in standard written English that a literate audience can easily understand. To accomplish this, students will learn methods of prewriting, construct and revise a series of original essays, discuss readings, and participate in collaborative activities which increase their ability to articulate ideas. This is a non-degree credit course and is offered on a pass/no pass basis. Each week, three additional hours will be required in an accompanying 35W Writing Workshop offered on a pass/no pass basis. This class can also be taken in three 6-week modules. Students will have the opportunity to take one, two, or three modules for one unit of credit each. Module A will cover simple and compound sentences, simple punctuation, and language usage. Students will practice writing to instruct and inform. Module B will cover complex sentences, punctuation such as colons and semicolons, and use of persuasive language. Further practice will be given in the use of commas and capitalization. Module C will include paragraphs, short essays, punctuation review, and use of sequential and transitional language. Practice will be given in adapting information to different audiences. In addition to this material, modules A, B, and C will cover material detailed in the appendix to the course outline. To receive credit for ENGL 035 or ENGL 035 A, B, C, students must receive a score of 10 or higher on the common final. Workshop credit will be given upon completion of all three modules. Students may enroll in all modules or individual modules and receive appropriate credit. English 035 A, B, C is offered on an open entry, open exit basis. This is a non-degree credit course and is offered on a pass/no pass basis. (Each week, three additional hours will be required in the ENGL 035W Writing Workshop, offered on a pass/no pass basis.)

**3 Units**  
**54 Lecture hours**

## ENGLISH

### Division of Communications & Languages

**ENGL 030**  
**Introductory Composition for Developing Writers**  
*Corequisite: ENGL 030W*  
*Advisory: READ 022 or appropriate assessment*  
 This course assists students in developing thinking, language, and writing skills through structured assignments that increase in complexity throughout the semester. This is the first or beginning course in composition; it prepares students for success in either ENGL 035 or ENGL 101. Students must concurrently enroll in the one-unit Writing Workshop, ENGL 030W. This is a non-degree applicable course and is offered on a pass/no pass basis.  
**3 Units**  
**54 Lecture hours**

**ENGL 030W**  
**Writing Workshop**  
*Corequisite: ENGL 030*  
*Advisory: READ 022 or appropriate assessment*  
 This is a lab course designed to assist students in developing and improv-

**ENGL 035A**  
**Intermediate Composition for**  
**Developing Writers**

*Prerequisite:* ENGL 030 or ENLA 034 with a grade of "Pass" or appropriate assessment

*Corequisite:* ENGL 035W

This is a composition course which trains students in the clear and logical communication of ideas and information. Students will learn to relate ideas and information in standard written English that a literate audience can easily understand. To accomplish this, students will learn methods of prewriting, construct and revise a series of original essays, discuss readings, and participate in collaborative activities which increase their ability to articulate ideas. This is a non-degree credit course and is offered on a pass/no pass basis. Each week, three additional hours will be required in an accompanying 35W Writing Workshop offered on a pass/no pass basis. This class can also be taken in three 6-week modules. Students will have the opportunity to take one, two, or three modules for one unit of credit each. Module A will cover simple and compound sentences, simple punctuation, and language usage. Students will practice writing to instruct and inform. Module B will cover complex sentences, punctuation such as colons and semicolons, and use of persuasive language. Further practice will be given in the use of commas and capitalization. Module C will include paragraphs, short essays, punctuation review, and use of sequential and transitional language. Practice will be given in adapting information to different audiences. In addition to this material, modules A, B, and C will cover material detailed in the appendix to the course outline. To receive credit for ENGL 035 or ENGL 035 A, B, C, students must receive a score of 10 or higher on the common final. Workshop credit will be given upon completion of all three modules. Students may enroll in all modules or individual modules and receive appropriate credit. English 035 A, B, C is offered on an open entry, open exit basis. This is a non-degree credit course and is offered on a pass/no pass basis. (Each week, three additional hours will be required in the ENGL 035W Writing Workshop, offered on a pass/no pass basis.)

**1 Unit**  
**18 Lecture hours**

**ENGL 035B**  
**Intermediate Composition for**  
**Developing Writers**

*Prerequisite:* ENGL 030 or ENLA 034 with a grade of "Pass" or appropriate assessment

*Corequisite:* ENGL 035W

This is a composition course which trains students in the clear and logical communication of ideas and information. Students will learn to relate ideas and information in standard written English that a literate audience can easily understand. To accomplish this, students will learn

methods of prewriting, construct and revise a series of original essays, discuss readings, and participate in collaborative activities which increase their ability to articulate ideas. This is a non-degree credit course and is offered on a pass/no pass basis. Each week, three additional hours will be required in an accompanying 35W Writing Workshop offered on a pass/no pass basis. This class can also be taken in three 6-week modules. Students will have the opportunity to take one, two, or three modules for one unit of credit each. Module A will cover simple and compound sentences, simple punctuation, and language usage. Students will practice writing to instruct and inform. Module B will cover complex sentences, punctuation such as colons and semicolons, and use of persuasive language. Further practice will be given in the use of commas and capitalization. Module C will include paragraphs, short essays, punctuation review, and use of sequential and transitional language. Practice will be given in adapting information to different audiences. In addition to this material, modules A, B, and C will cover material detailed in the appendix to the course outline. To receive credit for ENGL 035 or ENGL 035 A, B, C, students must receive a score of 10 or higher on the common final. Workshop credit will be given upon completion of all three modules. Students may enroll in all modules or individual modules and receive appropriate credit. English 035 A, B, C is offered on an open entry, open exit basis. This is a non-degree credit course and is offered on a pass/no pass basis. (Each week, three additional hours will be required in the ENGL 035W Writing Workshop, offered on a pass/no pass basis.)

**1 Unit**  
**18 Lecture hours**

**ENGL 035C**  
**Intermediate Composition for**  
**Developing Writers**

*Prerequisite:* ENGL 030 or ENLA 034 with a grade of "Pass" or appropriate assessment

*Corequisite:* ENGL 035W

This is a composition course which trains students in the clear and logical communication of ideas and information. Students will learn to relate ideas and information in standard written English that a literate audience can easily understand. To accomplish this, students will learn methods of prewriting, construct and revise a series of original essays, discuss readings, and participate in collaborative activities which increase their ability to articulate ideas. This is a non-degree credit course and is offered on a pass/no pass basis. Each week, three additional hours will be required in an accompanying 35W Writing Workshop offered on a pass/no pass basis. This class can also be taken in three 6-week modules. Students will have the opportunity to take one, two, or three modules for one unit of credit each. Module

A will cover simple and compound sentences, simple punctuation, and language usage. Students will practice writing to instruct and inform. Module B will cover complex sentences, punctuation such as colons and semicolons, and use of persuasive language. Further practice will be given in the use of commas and capitalization. Module C will include paragraphs, short essays, punctuation review, and use of sequential and transitional language. Practice will be given in adapting information to different audiences. In addition to this material, modules A, B, and C will cover material detailed in the appendix to the course outline. To receive credit for ENGL 035 or ENGL 035 A, B, C, students must receive a score of 10 or higher on the common final. Workshop credit will be given upon completion of all three modules. Students may enroll in all modules or individual modules and receive appropriate credit. English 035 A, B, C is offered on an open entry, open exit basis. This is a non-degree credit course and is offered on a pass/no pass basis. (Each week, three additional hours will be required in the ENGL 035W Writing Workshop, offered on a pass/no pass basis.)

**1 Unit**  
**18 Lecture hours**

**ENGL 035W**  
**Writing Workshop**

*Corequisite:* ENGL 035

*Advisory:* READ 022 or appropriate assessment

This is a lab course designed to assist students in developing and improving their writing and language skills through individual conferences with composition instructors. Students will complete and revise assignments that complement the goals and objectives of English 035. All English 035 students must enroll in this course. This course may be repeated one time for credit. This is a non-degree applicable course offered on a pass-no pass basis.

**0.5 Unit**  
**27 Lab hours**

**ENGL 101**  
**College Composition and Research**

*Prerequisite:* ENGL 035 with a grade of "Pass" or ENLA 100 with an "A" or "B" or appropriate assessment

*Transfers to:* UC, CSU

This is a composition course that enables students to generate logical, coherent essays and reports necessary to academic and professional success. Students will become proficient in research techniques, learn critical reading and thinking skills through expository and persuasive reading selections, and apply these skills to creating original essays and a final research paper. The lab component of this course is designed to assist students in improving and refining their writing and language skills. Students will complete lab activities that enhance their ability to compose logical, well-supported arguments that exhibit grammatical fluency and

correct documentation form. Students will meet with composition instructors through individual conferences that address students' specific writing concerns. This course is designed for students who wish to fulfill the General Education requirement for Written Communication.

**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENGL 103**  
**Tutorial Skills in Composition**

*Prerequisite: ENGL 101 or ENGL 201 with an "A" or "B"*  
*Prerequisite/Corequisite: ED 090*  
*Transfers to: CSU*

This course prepares students to tutor in composition/writing. Prospective tutors will be trained to assist students in all stages of the writing process: invention/prewriting, composing/drafting, revising, and editing. Emphasis will be placed on the dialogic nature of the tutoring process in writing. This course is primarily intended for Learning Assistance Center and Writing Workshop tutors and may also be of interest to those pursuing a career in teaching.

**0.5 Unit**  
**9 Lecture hours**

**ENGL 105**  
**Tutoring Skills in English as a Second Language**

*Prerequisite: ENGL 101 or ENGL 201 with an "A" or "B"*  
*Transfers to: CSU*

This course prepares students to tutor in English as a Second Language. Prospective tutors will be trained to assist students in writing for ESL classes. Emphasis will be placed on the interactive nature of second language acquisition. This course is primarily intended for Learning Assistance Center and Writing Workshop tutors and may also be of interest to those pursuing careers in teaching.

**0.5 Unit**  
**9 Lecture hours**

**ENGL 125**  
**Grammar and Usage**

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course explores parts of speech, varieties of sentence structures, common grammar and usage problems, and how to apply these issues to real-world communications. It is designed for students who wish to expand their knowledge of standard American English and thereby increase their skill in the written and spoken language. It is especially helpful for students planning to go into teaching.

**3 Units**  
**54 Lecture hours**

**ENGL 126**  
**Languages of the World**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is a linguistics course which covers the major languages families of the world and representative languages from those families. It presents the phonology, morphology, syntax, and pragmatics of these languages. It is specifically targeted at those who will be working with non-native speakers of English in order to equip them to recognize the cross-linguistic influences of other languages on English, thus preparing them to communicate more effectively with their clients and/or students and to assess the linguistic and sociolinguistic factors which affect communication. This course is useful for majors in foreign language, anthropology, communications, health science, and English, and especially for those planning to enter elementary and secondary teaching in California, with its diversity of languages and cultures.

**3 Units**  
**54 Lecture hours**

**ENGL 127**  
**Language Structure and Language Use: Introduction to Linguistics**

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course explores the nature and structure of language, including phonology, morphology, syntax, semantics and discourse, language acquisition and language development, and language use. This course is useful for students planning to enter elementary or secondary teaching and for those majoring in foreign language, English, communications, and anthropology.

**3 Units**  
**54 Lecture hours**

**ENGL 127H**  
**Language Structure & Language Use: Introduction to Linguistics**

*Prerequisite: ENGL 101 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course explores the nature and structure of language, including phonology, morphology, syntax, semantics and discourse, language acquisition and language development, and language use. This course is useful for students planning to enter elementary or secondary teaching and for those majoring in foreign language, English, communications, and anthropology. This course is designed for students eligible for the Honors Program.

**3 Units**  
**54 Lecture hours**

**ENGL 131**  
**Creative Writing**

*Prerequisite: ENGL 101*  
*Transfers to: UC, CSU*

This is a course of expression for students who are interested in various forms of writing. It offers students a workshop setting in which to develop their writing skills in various genres, such as fiction, poetry, and playwriting. Students are required to write regularly, present their own work in class for discussion, and develop critical standards for evaluating the merit of their own work and of the work of their peers.

**3 Units**  
**54 Lecture hours**

**ENGL 201**  
**Advanced Composition and Critical Thinking**

*Prerequisite: ENGL 101 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ENGL 201 or ENGL 201H)*

This advanced composition course is open to all students who have successfully completed ENGL 101 and is designed for those who expect to transfer to four-year colleges or universities. Students will read and write extensively, while applying critical thinking skills and research techniques. Students will demonstrate these abilities in advanced composition as they research and write a series of argumentative essays, which demonstrate the ability to analyze issues, evaluate positions, and argue persuasively through clear, concise prose. The lab component of this course is designed to assist students in advancing and refining their writing and language skills and will augment their ability to exercise critical thought. Students will complete lab activities that further enhance their ability to compose logical, well-supported arguments that exhibit grammatical fluency and correct documentation form. Students will meet with composition instructors through individual conferences that address students' specific writing concerns.

**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENGL 201H**  
**Advanced Composition and Critical Thinking**

*Prerequisite: ENGL 101 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: ENGL 201 or ENGL 201H)*

This advanced composition course is open to all students who have successfully completed ENGL 101 and is designed for those who expect to transfer to four-year colleges or

universities. Students will read and write extensively, while applying critical thinking skills and research techniques. Students will demonstrate these abilities in advanced composition as they research and write a series of argumentative essays, which demonstrate the ability to analyze issues, evaluate positions, and argue persuasively through clear, concise prose. The lab component of this course is designed to assist students in advancing and refining their writing and language skills and will augment their ability to exercise critical thought. Students will complete lab activities that further enhance their ability to compose logical, well-supported arguments that exhibit grammatical fluency and correct documentation form. Students will meet with composition instructors through individual conferences that address students' specific writing concerns. This Honors section is open to all students who have completed English 101 with a grade of C or better. Students will be expected to analyze issues in more depth and write on them at greater length than they would in a non-Honors section.

**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENGL 299**

**Directed Study: English**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## ENGLISH AS A NEW LANGUAGE

Division of Communications  
& Languages

**ENLA 011**

**Basic Vocabulary**

*Advisory: ENLA 014 or appropriate assessment*

This course is designed to help non-native speakers of English learn meanings, forms, uses, and pronunciations of 200-250 English words not presently in their vocabulary. Special emphasis is given to examining words in context, parts of speech, and inflections. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 012**

**Beginning Speaking and Listening**

This course is for English language learners who wish to improve their conversational skills in English. Areas of emphasis include dictation, English phrasing patterns, various speaking situations, listening practice, and self-correction. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 013**

**Basic Grammar**

*Advisory: NESL 018 or appropriate assessment*

This is an introductory grammar course for non-native speakers of English. Through reading, writing, listening, and speaking activities, students learn basic English grammar while focusing on verb structures. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 014**

**Beginning Composition**

*Prerequisite: Appropriate placement through the Rio Hondo Assessment Process*

This course is designed to help limited English-speaking students communicate better in English. The course focuses on the development of written skills. Topics specifically emphasized are idiomatic expressions, vocabulary, reading and

writing. These are taught at an entry level. This course is offered on a pass/no pass basis and is not applicable to the degree.

**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENLA 022**

**Intermediate Speaking and Listening**

*Prerequisite: ENLA 012 or appropriate assessment*

This course is for ENLA students who wish to improve their English speaking and listening skills at an intermediate level. Areas of emphasis include pronunciation, listening, oral communication, note taking and organizational skills. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 023**

**Intermediate Grammar  
(Formerly ESL 029A,B,C)**

*Prerequisite: ENLA 013 or appropriate assessment*

*Advisory: ENLA 024 or appropriate assessment*  
 This course presents a multi-skills approach to English grammar and sentence structure for second-language students. Through reading, writing, listening, and related activities such as dictation, cloze exercises, and sentence analysis, students practice the elements of correct English while focusing on verbs and verb forms. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.

**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 024**

**Intermediate Composition**

*Prerequisite: ENLA 014 or appropriate assessment*

This is an intermediate composition class for non-native speakers of English focusing on the fundamentals of academic writing in English. Basic sentence structures, paragraph development, composition forms, English grammar and word usage are studied in various rhetorical modes. This course is offered on a pass/no pass basis and is not applicable to the degree.

**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENLA 032**

**Advanced Speaking and Listening:  
Pronunciation and Accent Reduction**

*Prerequisite: ENLA 022 or appropriate assessment, or permission of instructor*  
*Advisory: READ 022 or appropriate assessment*

ENLA 032 is a speaking, listening

and pronunciation course intended for students who need further practice in spoken English and/or have difficulty understanding native speakers of English in academic and other situations. Its purpose is improved the pronunciation, articulation, speed and comprehension of non-native speakers of English. The course focuses on sounds in isolation, the blending of sounds in phrasal elements and the production of sentences incorporating correct intonation, accent, speed and rhythm. This course is offered on a pass/no pass basis and is not applicable to the degree. Students are expected to complete an additional 8 hours TBA (To Be Arranged) in the Language Lab.  
**3 Units**  
**54 Lecture hours**  
**8 Lab hours**

**ENLA 034**  
**Intermediate-Advanced Composition**  
*Prerequisite: ENLA 024 or appropriate assessment*

A continuation of ENLA 024, this course is for ENLA students and emphasizes longer writings with more complicated sentence patterns leading up to a basic essay. Students focus on both thematic and rhetorical modes of composition while they practice topic sentences, thesis statements, subordination, and transitional expressions. This course is offered on a pass/no pass basis and is not applicable to the degree.  
**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

**ENLA 100**  
**Advanced Composition**  
*Prerequisite: ENLA 034 or appropriate assessment*

*Transfers to: UC, CSU*  
ENLA 100 is the highest-level course of the ENLA writing sequence and an ENLA student's gateway in to English 101. As a result of taking this course, students will be able to utilize various stages of the writing process, MLA conventions of academic writing in several rhetorical modes (including a research paper), and advanced levels of grammatical and mechanical accuracy in their writing.  
**3.5 Units**  
**54 Lecture hours**  
**27 Lab hours**

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## ENGLISH AS A SECOND LANGUAGE

### Division of Communications & Languages

**ESL 020**  
**Beginning Reading for ESL Students**  
*Advisory: Appropriate skill level demonstrated through the Rio Hondo Assessment Process*  
ESL 020 is designed for beginning ESL students who want to expand

their English vocabulary and practice reading in English. Basic preparation for reading comprehension and life skills acquisition will be provided. This is a non-degree credit class. Offered on a pass/no-pass basis.  
**3 Units**  
**54 Lecture hours**

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## ENVIRONMENTAL TECHNOLOGY

### Division of Mathematics & Sciences

**ET 070**  
**Introduction to Alternative Energy Technology (Same as AET 070)**  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This course is an introductory course that will examine the theory behind present day energy systems which will include an in-depth analysis of the design and installation of alternate energy systems. Topics will include: solar electrical systems, wind electrical systems, solar water heating systems, wind mechanical systems, small hydro-electrical systems, and conservation methods used to save energy. Also presented are topics on geothermal energy, fuel cells, biomass systems, and applications of alternate energy in transportation, industrial, commercial, and residential systems. Students will collect solar data using an irradiance meter and determine power consumption of a typical residence to develop an alternative energy solution. This course is intended for students that are contemplating a career in the alternative energy industry.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**ET 072**  
**Photovoltaic Systems Design and Installation (Same as AET 072)**

*Corequisite: AET/ET 070*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
This is an introductory course that will examine and implement the design and installation of solar photovoltaic power systems which will include the installation of a working solar photovoltaic power system. Students will learn how to perform solar site evaluations, electrical load calculations, solar system size calculations, and installation techniques for grid-tie and off-the-grid photovoltaic systems. This course is approved by the North American Board of Certified Energy Practitioners (NABCEP) and the students can take the optional Photovoltaic Systems Entry Level Certification exam as part of the course. This course is intended for

students that are contemplating a career in the solar photovoltaic energy industry.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**ET 074**  
**Advanced Photovoltaic Systems Design and Installation (Same as AET 074)**

*Prerequisite: AET/ET 072*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
This is the second course in the photovoltaic series that will further examine and implement the design and installation of solar photovoltaic power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning photovoltaic installations. The topics include code compliant wiring of modules, inverters, charge controllers, batteries, grounding techniques and related topics. Additional topics include the design and installation of large commercial photovoltaic systems. This course is intended for students that are interested in a career in the solar photovoltaic energy industry.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**ET 076**  
**Wind Energy Systems Design and Installation (Same as AET 076)**

*Corequisite: AET/ET 070*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
This is an introductory course that will examine and implement the design and installation of wind power systems which will include the installation of a working wind generation power system. Students will learn how to perform wind site evaluations, electrical load calculations, wind system size calculations, hydraulics fundamentals, basic aerodynamics, and installation techniques for wind power generation systems. Students will learn how to design and install wind power generation system and obtain skills for employment. This course is intended for students that are contemplating a career in the wind turbine power generation industry.  
**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**ET 078**  
**Advanced Wind Energy Systems Design and Installation (Same as AET 078)**

*Prerequisite: AET/ET 076*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
This is the second course in the wind energy series that will further examine and implement the design and

installation of wind power systems. Students will learn how to interpret the National Electrical Code (NEC) specifics concerning wind power installations. The topics include code compliant wiring of modules, inverters, charge controllers, grounding techniques and related topics. Additional topics include wind site evaluations, electrical load calculations, wind system size calculations, hydraulic fundamentals, basic aerodynamics, and installation techniques for large wind power generation systems. This course is intended for students that are contemplating a career in the wind turbine power generation industry.

**3 Units**

**45 Lecture hours**

**27 Lab hours**

#### **ET 110**

##### **Hazardous Waste Generation/Reduction/Treatment**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to educate individuals working in or seeking employment in the hazardous waste management field with an overview of industrial processes and their generation of waste streams. The selected industries include: electroplating, metal finishing and printed circuit board production; oil refining and chemical production; steel production; general manufacturing; printing and graphic reproduction; agriculture; and consumer services.

**3 Units**

**54 Lecture hours**

#### **ET 130**

##### **Health Effects of Environmental Hazardous Materials**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; BIOL 120; BIOL 120L; CHEM 110*

*Transfers to: CSU*

This course is designed to educate individuals working in or seeking employment in areas that include health and safety responsibilities. It provides an overview of how to identify and evaluate the hazards of chemical, physical and biological agents that can be encountered in industrial operations, waste disposal and remediation sites.

**3 Units**

**54 Lecture hours**

#### **ET 150**

##### **Hazardous Waste Management Applications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or seeking employment in the environmental field with an overview of hazardous waste management and regulations. The course explains the hazardous waste regulatory framework and develops research skills in the hazardous waste area. Emphasis is placed on the following topics: universal waste, generator compliance, site investigation and remediation, permitting, enforcement, liability, and storm water discharge. The course also provides "hands-on" applications of the regulations. These applications include: preparing a hazardous waste manifest, labeling and storing containers, sampling and analysis, and preparing a Phase I environmental audit.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

#### **ET 160**

##### **Hazardous Waste Site Remediation Systems**

*Prerequisite: CHEM 110; ET 101*

*Advisory: GEOL 150; GEOL 150L*

*Transfers to: CSU*

This course provides an overview of remediation systems that are employed in cleaning up hazardous waste sites. The remediation systems that will be studied include: groundwater remediation systems, soil vapor extraction, chemical extraction/soil washing, solidification/stabilization, bioremediation, thermal processes, and chemical destruction. Specific details on the compounds removed, the fundamentals and specific applications of each method will be examined. Innovative remediation technologies and trends in remediation systems will be studied. A case study, which will highlight the remediation processes that are being used at a selected remediation site, will be examined.

**3 Units**

**54 Lecture hours**

#### **ET 170**

##### **Groundwater Hydrology and Sampling**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to train individuals, who are working in or who seek employment in the environmental field, with an overview of the basic physical and chemical nature of groundwater aquifer systems,

an overview of the techniques of sampling protocols for obtaining groundwater samples based on US EPA approved sampling protocols, and an introduction to groundwater pollution, remediation, and protection. Emphasis is placed on developing practical working knowledge of groundwater resources, groundwater protection, and groundwater remediation.

**3 Units**

**54 Lecture hours**

#### **ET 181**

##### **Home Energy Management and Auditing (Same as AET 181)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of home energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive home energy audit and energy management program. Emphasis is placed on the following topics: Appliances, Insulation, Designing/Remodeling, Electricity, Landscaping, Lighting, Space Heating and Cooling, Water Heating, Doors/Windows/Skylights, and Home Energy Audits.

**3 Units**

**54 Lecture hours**

#### **ET 182**

##### **Industrial Energy Management and Auditing (Same as AET 182)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or seeking employment in the green energy field, with an overview of the industrial energy management and auditing. Specifically, this course will assist students in their preparation of a comprehensive energy audit and energy management program. Emphasis is placed on the following topics: Types of Energy Audits, Energy Management and Cost, Benchmarking, Energy Performance, Energy Use Requirements, Maximizing System Efficiencies, Optimizing Energy Input Requirements, Fuel and Energy Substitution and Energy Audit Instruments.

**3 Units**

**54 Lecture hours**

**ET 200  
Hazardous Materials Management  
Applications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or who seek employment in the hazardous materials management field, with a general overview of the requirements and applications of federal, state, and local laws and regulations relating to hazardous materials. The course will emphasize compliance with Department of Transportation, OSHA Hazard Communications, SARA Title III Community Right-to-Know, Underground Tank, Asbestos, Proposition 65, and Air Toxics Regulations.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ET 230  
Safety and Emergency Response**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or who seek employment in the environmental technology field, with hands-on instruction in safety and emergency response to chemical and physical exposures at hazardous waste sites. Topics include: hazard identification, emergency response planning, proper use and selection of PPE, site control and evaluation, handling drums and containers, field sampling and air monitoring, proper use of instruments, confined spaces, emergency response including field exercises in the use of APR and SCBA. This course satisfies the requirements for 40 hour HAZ-WOPER TRAINING under OSHA (1910.120) and confined space entry training under OSHA (1910.146).

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ET 240  
Solid Waste Management Applications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or seek employment in the solid waste management field, with an overview of the solid waste industry and its components. Emphasis is placed on the various aspects of integrated waste management including: waste prevention, recycling, composting, incineration, landfilling, environmental sampling and monitoring, facility siting and permitting, and compli-

ance with environmental, health and safety regulations.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ET 250  
Fundamentals of Safety and Health I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment, ET 230, or working in General Industry, Construction, or in the Safety and Health Field*

*Transfers to: CSU*

This course is designed to introduce the student to the field of Occupational Safety and Health and Program Development. Topics include instruction on Federal, State and Local Agency legislation and the application of Labor and Occupational Safety and Health regulations. The course content also includes familiarization with Workers Compensation/General Liability Insurance, Accident Investigation Techniques, Industrial Hygiene, Ergonomics, Fire Prevention, Site and Facility Auditing, Systems Safety and Program Development. This course is for individuals that are pursuing a degree in Environmental Technology, Safety & Health or for working supervisors, professionals or business owners that are responsible for worker safety or placement of workers compensation/general liability insurance.

**3 Units**

**54 Lecture hours**

**ET 251  
Fundamentals of Safety and Health II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ET 230*

*Transfers to: CSU*

This course is designed to introduce the student to the supervisory and management functions of Occupational Safety and Health and Risk Management. Topics include a review of Federal, State and Local Agency Legislation, Labor and Occupational Safety and Health regulations and Workers Compensation insurance. The course content will focus on the Elements of Safety and Health Program Development, Behavior Based Safety, Workplace Violence, Terrorism Preparedness, Hazardous Materials and Waste Management, Application of occupational safety and health design/compliance, regulations and development of the Safety and health and Loss Prevention Program (Policy through QA/QC). This course is for individuals that are pursuing a degree in Environmental Technology, a Safety & Health Certificate and the working professional or business owner responsible for worker safety or Risk Management.

**3 Units**

**54 Lecture hours**

**ET 260  
Environmental Sampling and Analysis**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; BIOL 120; BIOL 120L; CHEM 110*

*Transfers to: CSU*

This course provides an overview of the techniques of sampling protocols for obtaining soil, air, surface water, and groundwater samples based on the U.S. EPA approved sampling protocols. In the lecture, emphasis is placed on the aspects of the procurement of the samples through the EPA approved standard operating procedures and practices. In the laboratory, the student will gain practical knowledge and skills for the appropriate collection and handling of environmental samples.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**ET 270  
Wastewater Treatment Plant  
Operations I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This is the initial course of a series of water treatment courses designed to train individuals, who are working in or who seek employment in the waste water treatment field, in the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. Information presented includes the role and responsibilities of a treatment plant operator, an explanation of why wastes must be treated, and detailed descriptions of the equipment and processes used in a wastewater treatment plant. Students will learn to operate and maintain racks, screens, comminutors, sedimentation tanks, trickling filters, rotating biological contactors, package activated sludge plants, oxidation ditches, ponds, and chlorination facilities. Students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control.

**3 Units**

**54 Lecture hours**

**ET 271  
Wastewater Treatment Plant  
Operations II**

*Prerequisite: ET 270*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This is the second course of a series of water treatment courses designed to train individuals, who are working in or who seek employment in the waste water treatment field, with the practical aspects of operating and maintaining wastewater treatment plants, emphasizing the use of safe practices and procedures. Informa-

tion presented includes: conventional activated sludge processes, sludge digestion and solids handling, effluent disposal, plant safety and good housekeeping, plant and equipment maintenance, analysis and presentation of data, and records and report writing. Students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control.

**3 Units**  
**54 Lecture hours**

#### ET 272

##### **Advanced Wastewater Treatment**

*Prerequisite: ET 271*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This is the third course in a series of water treatment courses designed to train individuals who are working in or who seek employment in the waste water treatment field in the practical aspects of operating and maintaining wastewater treatment plants and emphasizes the use of safe practices and procedures. Topics presented include: detailed descriptions of the equipment and advanced treatment processes used for odor control, pure oxygen activated sludge treatment, solids removal from secondary effluents, residual solids management, enhanced biological control including nitrogen and phosphorus removal, and wastewater reclamation. Students will learn to operate and maintain treatment plant instrumentation equipment and systems. Additionally, students will also learn to analyze and solve operational problems and to perform mathematical calculations relating to wastewater treatment process control. This course focuses on actual operating procedures and teaches students to analyze and solve operational problems.

**3 Units**  
**54 Lecture hours**

#### ET 280

##### **Green Building Design Principles** (Same as AET 280)

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

*Transfers to: CSU*

This course is designed to provide individuals, who are working in or seeking employment in the green building field, with an overview of the green building industry and its components. Specifically, this course will assist students in their preparation for the Leadership in Energy and Environmental Design Accredited Professional (LEED AP) Examination, which is the most recognized professional accreditation for green building in the nation. Emphasis is placed on the six categories of design that green buildings must address

for LEED Certification: Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, Indoor Environmental Quality, and Innovation & Design Process. Each of these categories will be studied, with a focus on the significance of each particular credit.

**3 Units**  
**54 Lecture hours**

#### ET 290

##### **Cooperative Work Experience/ Internship for Environmental Technology Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of environmental technology and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

##### **Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours;*

*3 Units/180 hours; 4 Units/240 hours*

##### **Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours;*

*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

#### ET 299

##### **Directed Study: Environmental Technology**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit

awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester.

Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## FABRICATION

### **Division of Career & Technical Education**

#### FABR 040

##### **Introduction to Fabrication Processes**

*Advisory: READ 023 or appropriate assessment; MATH 020 or appropriate assessment; TCED 090*

This is a beginning level course designed to introduce students to various techniques, processes and technologies used in the Fabrication industry. This course will develop skills necessary for translating dimensional information from a shop drawing or blueprint to metallic materials used for production of finished parts and assemblies. Topics covered in this class will include basic blueprint reading, measurement and measuring tools, layout, metal cutting, drilling and tapping, and metal forming. Emphasis will be placed on shop safety and safe and proper use of equipment, tools and materials.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

#### FABR 045

##### **Intermediate Fabrication Processes**

*Advisory: READ 023 or appropriate assessment; MATH 020 or appropriate assessment; FABR 040*

This is a beginning level course designed to broaden the students' skills and knowledge of metal fabrication techniques. This course will introduce students to basic hand tools and power tools commonly used in the metal fabrication industry. Topics covered in this class will include structural fabrication, tube bending, stair layout and construction, and fabrication of components from sheet metal. Emphasis will be placed on shop safety and on developing proper working procedures.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

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## FINANCE

### Division of Business

#### FIN 101

##### Introduction to Financial Planning

*Advisory: READ 023 or appropriate assessment; MATH 030 or MATH 030D or appropriate assessment.*

*Transfers to: CSU*

This course provides an overview of the fundamentals of financial planning. Course topics include the financial planning process, managing assets, managing credit, managing investments in stocks, bonds, mutual funds, insurance, and real estate, and retirement and estate planning. This course is designed for those interested in learning about personal financial planning and/or entering the field of financial planning.

**3 Units**

**54 Lecture hours**

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## FIRE ACADEMY

### Division of Public Safety

#### FAC 043

##### Advanced Fire Course

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This is a variable format (2-40 Hours of Lecture; 2-40 Hours of Lab) course designed to keep Fire Service personnel informed of new laws and fire codes, current prevention procedures, recent developments in hazardous materials, stress on the firefighter, technology, community relations, physical fitness & wellness and other refresher training as may be necessary.

**0.074 to 1.482 Units**

**2 to 40 Lecture hours**

**2 to 40 Lab hours**

#### FAC 118

##### Firefighter I, Basic Fire Academy

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or MATH 030D or appropriate assessment; FTEC 101; FTEC 102; FTEC 103; FTEC 104; FTEC 105; FTEC 106; EMT 093*

*Advisory: BIOL 125*

*Transfers to: CSU-Restricted (see counselor for restrictions)*

This course is designed for recently employed firefighters and other interested students. Topics covered include organization of the public and private fire service, characteristics and behavior of fire, fire hazards and firefighter safety, extinguishing agents and related extinguishing equipment, fire protection systems and water supply, incident command system, confine space awareness, building construction and assemblies, basic firefighting tactics and strategy, fire prevention, hazardous materials, emergency care, wild land firefighting, Rapid Intervention, Rescue

Systems and physical fitness. This course meets the State Board of Fire Services requirements for designation as a "California Fire fighter I Accredited Academy" (ARA or Accredited Regional Academy by the California State Fire Marshal). Students who complete this course also receive California certification as an Emergency Medical Technician, in Vehicle Extrication, Fire Control I & II, Hazardous Materials First Responder Operational, Confine Space Awareness, Rescue Systems I, S-110, S-130, S-190, Trench Rescue, Rapid Intervention Crew Tactics and ICS -200. This course requires completion of a medical physical examination and includes arduous physical activity.

**22 Units**

**136 Lecture hours**

**783 Lab hours**

#### FAC 120

##### Firefighter I, Basic Fire Academy with EMT

*Prerequisites: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or MATH 030D or appropriate assessment; FTEC 101; FTEC 102; FTEC 103; FTEC 104; FTEC 105; FTEC 106*

*Advisory: BIOL 125*

*Transfers to: CSU*

This course is designed for recently employed firefighters and other interested students. Topics covered include organization of the public and private fire service, characteristics and behavior of fire, fire hazards and firefighter safety, extinguishing agents and related extinguishing equipment, fire protection systems and water supply, incident command system, confine space awareness, building construction and assemblies, basic firefighting tactics and strategy, fire prevention, hazardous materials, emergency care, wild land firefighting, Rapid Intervention, Rescue Systems and physical fitness. This course meets the State Board of Fire Services requirements for designation as a "California Fire fighter I Accredited Academy" (ARA or Accredited Regional Academy by the California State Fire Marshal). Students who complete this course also receive California certification as an Emergency Medical Technician, in Vehicle Extrication, Fire Control I & II, Hazardous Materials First Responder Operational, Confine Space Awareness, Rescue Systems I, S-110, S-130, S-190, Trench Rescue, Rapid Intervention Crew Tactics, Firefighter Safety and Survival and ICS -200. This course requires completion of a medical physical examination and includes arduous physical activity.

**22 Units**

**136 Lecture hours**

**783 Lab hours**

#### FAC 4305

##### Hazardous Material Identification

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is for fire department per-

sonnel and other interested students that want to learn about the current laws and regulations pertaining to the labeling of hazardous materials and the UN Hazardous Classifications. The National Fire Protection Association (NFPA) guidelines and the Department of Transportation (DOT) rules and regulations will be presented in this class.

**0.074 to 1.482 Units**

**2 to 40 Lecture hours**

**2 to 40 Lab hours**

#### FAC 4310

##### Management Orientation

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for fire department personnel and other interested students who seek information related to fire service management. The organizational structure of a fire department, fire officer responsibilities and establishing command at the scene of an emergency will be discussed.

**0.07 to 1.48 Units**

**2 to 40 Lecture hours**

**2 to 40 Lab hours**

#### FAC 4315

##### Arson Scene Investigation

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is for fire department personnel and other interested students as it provides an introduction to the practices and procedures of fire scene investigation. The scientific method of scene investigation, providing a systematic framework for investigations, is stressed. Determining the point of origin, establishing the cause and recognition, and preservation of evidence will be included. Current legally acceptable methods in compliance with the standards of NFPA 921 "Guide to Fire Explosion Investigations" are stressed throughout the course.

**0.074 to 1.482 Units**

**2 to 40 Lecture hours**

**2 to 40 Lab hours**

#### FAC 4326

##### Paramedic Support Operations

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for fire department personnel and other interested students who may assist paramedic units at the scene of emergencies. Patient preparation, stabilization and paramedic coordination will be reviewed. Common terminology will be included. This course meets the Los Angeles County Emergency Medical Technician requirements for recertification as an Emergency Medical Technician in the State of California.

**0.074 to 1.482 Units**

**2 to 40 Lecture hours**

**2 to 40 Lab hours**

**FAC 4327****Fire Fighting Operations, Structures**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for fire department personnel and other emergency responders who seek additional coursework in fighting structure fires. A review of basic firefighting tactics and strategy for occupancies such as dwellings, commercial occupancies, industrial occupancies, and special occupancies will be included. Emphasis will be placed on safety to personnel and crew cohesiveness.

**0.074 to 1.482 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**FAC 4328****Fire Fighting Operations, Mobile Units**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for fire department personnel and other emergency responders who seek additional coursework in fighting fires where mobile units are burning. A review of basic firefighting tactics and strategy specifically for cars, trucks, buses, ships, planes and trains will be discussed. This course will also present information related to terrorist acts while utilizing mobile equipment. Emphasis will be placed on safety to personnel.

**0.074 to 1.482 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**FAC 4329****Fire Fighting Operations, Hazardous Materials**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed for fire department personnel and other interested students who seek information related to response to fires where hazardous materials are present. A basic review of hazard classifications, response concerns when hazardous materials are present, and responder safety is discussed. This course will also present basic response issues related to terrorist acts involving hazardous materials.

**0.074 to 1.482 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**FAC 4330****Driving Techniques and Certification**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to train students to drive heavy equipment including fire engines and fire trucks under emergency and non-emergency conditions. This course will include classroom discussion, driving demonstrations, and driving practice. This course meets the standards of

the State of California and NFPA 1002, for driver certification.

**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**FAC 4331****Pumping Techniques and Certification**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to train students to operate fire apparatus under emergency and non-emergency conditions. It integrates the physical properties of modern fire apparatus suppression systems, pump theory and operation, hydraulic calculations, water supply considerations, relay pumping principles, water shuttle operations, foam systems operation and apparatus maintenance and testing. This course will include classroom discussion, pumping demonstrations, and pumping practice. This course meets the standards of the State of California and NFPA 1002, for operator certification.

**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**FAC 4335****Special Equipment Familiarization**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is intended for fire department personnel and other interested students who want to learn more about specialized equipment used in today's fire service. Such equipment as the jaws of life, compressor units, lighting units, life-saving equipment and command equipment will be included.

**0.074 to 1.482 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**FAC 4344****Fire Instructor 1A**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is the first of a two-course series designed to prepare Fire Service or other interested students to become a California Certified Fire Instructor. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. Topics covered include Occupational Analysis, course outline, concepts of learning, levels of instruction, behavioral objectives, lesson plan development, psychology of learning and instructor evaluation. Student teaching demonstrations are required of all.

**2 Units**  
**40 Lecture hours**

**FAC 4345****Fire Instructor 1B**

*Prerequisite: FAC 4344*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
State Board of Fire Services accredited courses in fire service instruc-

tional techniques, including methods of instruction, use of audio/visual equipment, employment of instructional aids, test construction, teaching demonstrations and reducing failure rates. This course applies to California Fire Service Training and Educational System certifications.

**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**FAC 4346****Fire Prevention 1A**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is the first of a two-course series designed to prepare Fire Service or other interested students to become a California Certified Fire Prevention Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. Topics covered provide broad, technical overview of fire prevention codes, ordinances, inspection practices and key hazards including responsibilities and authority, occupancy classification & types of construction, Egress requirements, fire resistive assemblies, general fire safety provisions, principles and procedures for fire inspections.

**2 Units**  
**40 Lecture hours**

**FAC 4347****Fire Prevention 1B**

*Prerequisite: FAC 4346*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is a second in the series of courses required for Fire Officer Certification as it relates to Fire Prevention. It is also designed for Fire Service personnel or other interested students to become a California Certified Fire Prevention Officer. This course focuses on the special hazards associated with flammable and combustible liquids and gases. Some topics of discussion include bulk storage and handling, transportation of flammable gases and liquids and more.

**2 Units**  
**40 Lecture hours**

**FAC 4348****Fire Investigation I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to prepare Fire Service or other interested students to become a California Certified Fire Investigator. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides the participants with an introduction to the basics of fire scene investigation. The focus of the course is to provide information on fire scene indicators and to determine the fire's origin.

**2 Units**  
**40 Lecture hours**

**FAC 4349****Fire Command 1A**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to prepare Fire Service or other interested students to become a California Certified Fire Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides instruction and simulation time pertaining to the initial decision and action processes at a working fire. Topics include the fire officer, fire behavior, fire ground resources, operations and management.

**2 Units**

**40 Lecture hours**

**FAC 4350****Fire Command 1B**

*Prerequisite: FAC 4349*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is a continuation of Fire Command 1A and is designed to prepare Fire Service or other interested students to become a California Certified Fire Officer. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course provides the student with information on tactics, strategies and scene management for multi-casualty incidents, hazardous materials incidents and wildland fires. Each student also has the opportunity to increase his or her knowledge and skills by handling initial operations at these types of incidents through simulation and class activities.

**2 Units**

**40 Lecture hours**

**FAC 4351****Fire Management I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This Fire Management course is designed to prepare Fire Service or other interested students to become a California Certified Fire Prevention Officer with emphasis on supervisory skills. This is one of the State Board of Fire Services accredited courses and applies to California Fire Service Training and Educational System certifications. This course prepares or enhances the first line supervisor's ability to supervise subordinates. It introduces key management concepts, practices utilized, and include discussions about decision making, time management, leadership styles, personnel evaluations and counseling guidelines.

**2 Units**

**40 Lecture hours**

**FAC 4353****Automatic External Defibrillator**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course provides training in the use of an automated external defibrillator. This course meets the requirements for certification in AED (automated external defibrillation) usage through the American Heart Association and is for the lay rescuer and first responder. This course is designed for the individual working in the public health and safety field. Offered on a pass/no pass basis.

**0.2 Unit**

**6 Lab hours**

**FAC 4361****Fire Command 1C I-Zone Fire Fighting for Company Officers**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This is a State Board of Fire Services accredited course in I-Zone firefighting and elements of the Incident Command System (ICS) for Company Fire Officers. This addresses the three elements of wild land fire behavior including fuel, weather and topography and fundamental elements of size-up as they relate to I-Zone firefighting. The duties and responsibilities of a Strike Team Company Officer and procedures for structure triage and protection are also addressed. This course is designed for firefighting personnel and other interested students who seek certification as a California State Certified "Fire Officer".

**2 Units**

**36 Lecture hours**

**FAC 4362****Incident Command System (ICS)200**

*Advisory: READ 023 or appropriate assessment*

This course is designed for students who desire a basic introduction to the Incident Command System (ICS) for fire ground operations. This course provides the foundation for students to actively take part as a member of team responding to a fire incident. Instruction will be provided in the principles and features of ICS, including an organizational overview, incident facilities, incident resources, and common responsibilities.

**0.2 Unit**

**12 Lecture hours**

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## FIRE TECHNOLOGY

### Division of Public Safety

**FTEC 044****Physical Fitness and Ability for the Firefighter**

*Prerequisite: Student must be able to lift 75lbs., drag a 150 pound "drag dummy", and use a sledge hammer in completion of a physical abilities test.*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to give in-service firefighters and interested students information about conditioning and fire department physical

ability test designs and will include manipulative drills in order to be successful in passing California PAT's (Physical Abilities Tests). This course will provide information on the most recently developed tests in Southern California including the CPAT (Candidate Physical Abilities Test) and the Biddle (Biddle and Associate Validated Test). Students will learn about firefighter wellness programs, review basic nutrition and current NFFPA (National Fire Protection Association) standards pertaining to firefighter health and safety. Students must be able to perform basic firefighter activities including climbing, using sledge hammers, dragging 150lb dummies and wearing a self-contained breathing apparatus.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**FTEC 045****Firefighter Entrance Examination Techniques**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU-Restricted (see counselor for restrictions)*

This course is designed to prepare Fire Technology or other interested students to take a firefighter's examination. Topics covered include a review of firefighter duties and the requirements of a firefighter, employment requirements in the fire service and the hiring process. Resumes, fire department written examinations, oral interviews, and other related aspects will be discussed.

**3 Units**

**54 Lecture hours**

**FTEC 101****Fire Protection Organization**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course provides Fire Technology or other interested students with an overview of fire protection issues. Included will be an introduction to the philosophy and history of fire protection and fire service. The organization and function of public and private fire protection services, the laws and regulations affecting fire service and the role of fire departments as part of local government will be explored. Basic fire chemistry, fire protection systems, firefighting strategies and possible career opportunities in fire related fields will also be addressed.

**3 Units**

**54 Lecture hours**

**FTEC 102****Principles of Fire & Emergency Services Safety & Survival**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course introduces the Fire Technology or other interested students

to the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior changes throughout the emergency services. This course has been updated to meet the National Fire and Emergency Services Higher Education objectives as it pertains to firefighter safety and survival techniques used in today's fire service.

**3 Units**  
**54 Lecture hours**

#### **FTEC 103**

##### **Fire Behavior and Combustion**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides Fire Technology or other interested students with an exploration of theories and fundamentals of how and why fires start, spread, and how they are controlled. An in-depth study of fire chemistry and physics, fire characteristics of materials, extinguishing agents, and fire control techniques will be explored.

**3 Units**  
**54 Lecture hours**

#### **FTEC 104**

##### **Fire Prevention Technology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide Fire Technology or other interested students with fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

**3 Units**  
**54 Lecture hours**

#### **FTEC 105**

##### **Building Construction for Fire Protection**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the Fire Technology or other interested students with an understanding of the essential components used in building construction that directly relates to fire safety. The elements of construction and design of structures, factors when inspecting buildings, preplanning fire operations, and operating at fires will be discussed. The development and evolution of building and fire codes will be studied in relationship to past fires in residential, commercial, and industrial occupancies.

**3 Units**  
**54 Lecture hours**

#### **FTEC 106**

##### **Fire Protection Equipment and Systems**

*Advisory: ENGL 035 or ENLA 100 or*

*appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the Fire Technology student with information pertaining to the design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.

**3 Units**  
**54 Lecture hours**

#### **FTEC 107**

##### **Hazardous Materials I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides fire technology or other interested students with information pertaining to the first responder role when dealing with hazardous materials operations. Hazardous materials decontamination procedures will also be discussed. Classification of hazardous materials and National Fire Protection Association standards (NFPA 472) will be addressed.

**3 Units**  
**54 Lecture hours**

#### **FTEC 108**

##### **Hazardous Materials II**

*Prerequisite: FTEC 107*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the fire technology or other interested student with information pertaining to the handling, identification, firefighting practices, and the explosive hazards confronted with during a hazardous materials response. The role of a Hazardous Material Technician and Specialist will be discussed. The types of hazardous materials that could be used during a terrorism event will be covered.

**3 Units**  
**54 Lecture hours**

#### **FTEC 109**

##### **Fire Fighting Tactics and Strategy**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the fire technology or other interested students with information pertaining to the elements of the incident management system, evaluation of information management and critical incident factors including control of incident communications, basic strategy decisions, and the development of a tactical plan. Basic current fire ground strategies will also be explored in this course.

**3 Units**  
**54 Lecture hours**

#### **FTEC 110**

##### **Rescue Practices**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or*

*appropriate assessment*

*Transfers to: CSU*

This course provides the Fire Technology or other interested students with a better understanding of rescue problems and techniques in the fire service field. Topics covered include emergency rescue equipment, toxic gases, chemicals, diseases, radiation hazards, and care of victims. Students will become prepared for emergency childbirths, respiration and resuscitation, auto extrication, and other emergency conditions throughout the course.

**3 Units**  
**54 Lecture hours**

#### **FTEC 111**

##### **Fire Hydraulics**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course provides the Fire Technology student with information applicable to hydraulics laws as they pertain to the fire service. The student will study and understand formulae and mental calculation to properly use the fire apparatus at a fire emergency to solve gallons per minute and pressure problems with water used for firefighting purposes.

**3 Units**  
**54 Lecture hours**

#### **FTEC 112**

##### **Fire Apparatus and Equipment**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the fire technology or other interested students with information pertaining to the design and operation of fire department apparatus. This includes components such as the engine, pump and drive train. Basic hydraulic calculations for operation and safe vehicle use will also be discussed. Topics addressed include the different types of fire apparatus and their function including wildland firefighting apparatus and municipal fire apparatus.

**3 Units**  
**54 Lecture hours**

#### **FTEC 114**

##### **Fire Investigation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides the Fire Technology or other interested students with an understanding of determining causes of fires (accidental, suspicious and incendiary). Topics covered include arson laws, field note taking, and incendiarism. Also addressed are the recognition and preserving of evidence, the interviewing of witnesses and suspects, arrest and detention procedures, court demeanor and the giving of court testimony.

**3 Units**  
**54 Lecture hours**

**FTEC 117**  
**Fire Service Management, Safety and Wellness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for fire technology majors to provide the student with the concepts, theories and principles of fire service management. Emphasis is placed on the distinctions between management, supervision and leadership. Fire service stress and safety management will be discussed and the national fire service standards will be presented.

**3 Units**

**54 Lecture hours**

**FTEC 121**  
**Emergency Response**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is intended for students that seek a better understanding of the role and responsibilities of a first responder. This class also meets the State of California Title 22 requirements pertinent to CPR, First Aid and AED (automatic external defibrillation) training as it relates to the EMT (Emergency Medical Technician).

This course will also certify the student to administer oxygen, provide professional rescuer CPR and provide basic first aid. This course may be repeated once.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**FTEC 150**  
**Truck Company Operations**

*Prerequisite: Firefighter 1 certification or completion of a CSFM approved Fire Academy*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is for veteran firefighters or other interested students that want to enhance their knowledge and ability as it pertains to the fire ground operations associated with truck company tactics and strategy. Basic roof construction, vertical and horizontal ventilation, forcible entry, positive and negative ventilation, search and rescue, thermal imaging technology, firefighter safety and survival, rapid intervention tactics, elevator rescue and related truck company operations will be discussed.

**2 Units**

**20 Lecture hours**

**60 Lab hours**

**FTEC 290**  
**Cooperative Work Experience/  
Internship for Fire Technology Related Fields**

*Advisory: READ 023 or appropriate assessment; ENGL 035 or ENLA 100 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in the Fire Technology field under supervision of a

college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Fire Technology and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours;*

*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours;*

*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**

**3 Lecture hours**

**60 to 300 hours**

**FTEC 299**  
**Directed Study: Fire Technology**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## FRENCH

### Division of Communications & Languages

**FR 101**  
**French I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course provides the student with an introduction to the French language and culture. The course stresses oral and written proficiency as well as reading comprehension. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive French websites, audio CDs, video programs, and CD ROMs. Various facets of French history, philosophy, and politics will also be analyzed via cross-cultural comparisons. This course is intended for those interested in learning to speak French as well as for those seeking a degree in the French language.

**4 Units**

**72 Lecture hours**

**18 Lab hours**

**FR 102**  
**French II**

*Prerequisite: FR 101*

*Transfers to: UC, CSU*

This course is a continuation to the essentials of the French language. The course stresses oral and written proficiency as well as reading comprehension. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. Various facets of French history, philosophy, and politics will also be analyzed via cross-cultural comparisons. This course is intended for those interested in continuing to learn to speak French as well as for those seeking a degree in the French language.

**4 Units**

**72 Lecture hours**

**18 Lab hours**

**FR 201**  
**French III**

*Prerequisite: FR 102*

*Transfers to: UC, CSU*

This course stresses advanced conversational, reading, writing and translation skills. Emphasis is placed on understanding spoken French as well as on proficiency and accuracy in speaking French. The course will include an introduction to French literature as well as the reading of one novel in French to be determined by the instructor. In addition to classroom instruction, students receive intensive, individualized oral-aural practice in the language laboratory in which websites, video programs, audio CDs, and CD ROMs are used. Various facets of French culture, philosophy, politics, and history will also be explored. This course is intended for those interested in continuing to learn to speak French as well as for those seeking a degree in the French language.

**4 Units**

**72 Lecture hours**

**18 Lab hours**

**FR 202**  
**French IV**

*Prerequisite:* FR 201

*Transfers to:* UC, CSU

This course is a continuation of FR 201. The course stresses advanced conversational, reading, writing, and translation skills. Emphasis is placed on understanding spoken French as well as on proficiency and accuracy in speaking French. The course will include an introduction to French literature as well as the reading of one novel in French to be determined by the instructor. In addition to classroom instruction, students receive intensive, individualized oral-aural practice in the language laboratory in which websites, video programs, audio CDs, and CD ROMs are used. Various facets of French culture, philosophy, politics, and history will also be explored. This course is intended for those interested in continuing to learn to speak French as well as for those seeking a degree in the French language.

**4 Units**

**72 Lecture hours**

**18 Lab hours**

**FR 299**

**Directed Study: French**

*Transfers to:* UC, CSU

Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study / directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## **GEOGRAPHIC INFORMATION SYSTEMS**

**Division of Career &  
Technical Education**

**GIS 120**

**Introduction to Geographic Information Systems and Spatial Analysis**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; CIT 101

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: GIS 120 or GIS 220)

This course will introduce fundamental concepts of geographic information and spatial analysis, using industry standard geospatial application tools including geographic information systems (GIS), global positioning systems (GPS), cartography, remote sensing. Students will learn how to use geospatial technologies to perform spatial analysis in various disciplines including but not limited to business, public safety, health, politics, engineering, environmental, and social, biological and geological sciences. Students should have a working knowledge of Windows to be successful in this course.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

**GIS 130**

**Applied Geographic Information Systems**

*Prerequisite:* GIS 120 or introductory level experience in GIS and use of e-mail and Internet

*Transfers to:* CSU

This course provides students an expanded hands-on study in GIS using ArcView and practical learning in the field to enhance GIS entry-level employment skills. Working in the field with professionals from GIS and other disciplines, students will collect real data and information using Global Positioning Systems GPS, develop GIS data, explore solutions to real problems and produce supportive documentation in a variety of formats including constructing web pages and plotting maps.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**GIS 220**

**Intermediate Geographic Information Systems**

*Prerequisite:* GIS 120 or basic level competency in ArcView

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: GIS 120 or GIS 220)

This intermediate course provides further study in ArcView and an introduction to its extensions which

apply to discipline specific applications using a Geographic Information System (GIS). Course work is based on the mapping and spatial analysis capabilities of ArcView and other GIS related software, introduction to Global Positioning Systems (GPS) terminology, technology, data structures, use of metadata and hands on training using GPS remote sensing hardware and software.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**GIS 221**

**Cartography and Base Map Development**

*Prerequisite:* GIS 120

*Advisory:* GIS 220

*Transfers to:* CSU

This course provides a study of cartographic principles using ESRI software, including history, map projections, scales, accuracy, data acquisition and methods used for map development and production. Techniques used in GIS base map development including scanning, digitizing, input of coordinate geometry, remote sensing, aerial images and use of Global Positioning Systems (GPS) in the field to gather data will be used to develop and produce professional quality maps. This course is designed for all students in GIS certificate and related degree programs.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**GIS 222**

**Planning and Facilities Management Using GIS**

*Prerequisite:* GIS 120

*Corequisite:* ENGT 150

*Transfers to:* CSU

This course uses ArcView GIS as an analytical and information tool for engineers, planners and facility managers to aid in the planning process, facilities management, systems evaluation, maintenance and asset management of large-scale facilities and infrastructure. Included is site management of facilities, city and regional planning, infrastructure based on topological features, evaluation based on growth indicators, population and economic projections, and use of GIS to support contemporary environmental rules and regulations. The course will include production of professional quality maps using ArcView as well as utilizing customized software.

**3 Units**

**54 Lecture hours**

**36 Lab hours**

**GIS 230**

**Geographic Information Systems (GIS) in Environmental Technology**

*Prerequisite:* GIS 120

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

In the environmental field today there are few jobs that do not require a background in Geographical Information Systems (GIS) and Global Positioning Systems (GPS). GIS is today widely

are few jobs that do not require a background in Geographical Information Systems (GIS) and Global Positioning Systems (GPS). GIS is today widely applied in planning used for land use and growth management, environmental assessment to disaster response. This course integrates training in GIS with field data collection methods using GPS & Remote Sensing to collect environmental data used interpretively by GIS. Students should have a working knowledge of Windows to be successful in this course. This course may be taken once for credit towards the certificate and repeated once for credit to enhance student skills and proficiency level. Possible day field trips are scheduled to visit local industries and for GPS field work.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

### **GIS 280** **Visual Basic and Database Management for GIS**

*Prerequisite: GIS 120*  
*Corequisite: GIS 220*

*Transfers to: CSU*  
This course presents the fundamentals of computer programming and database management systems (DBMS) techniques as utilized in Visual Basic and Access for various GIS (Geographic Information Systems) environments. Advanced GIS programming and database management methodologies for spatial data analysis and development of GIS applications will also be covered. This course is designed for students in the GIS program and others who wish to upgrade their skills to build a solid understanding of Visual Basic and data management systems for GIS customization and application development.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

### **GIS 281** **Crime Mapping and Analysis**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; CIT 101*

*Transfers to: CSU*  
Crime mapping plays an important role in almost any form of crime analysis and can improve our understanding of the important relationships between people, location, time, and crime. As a result, Geographic information systems (GIS) has become an essential tool used by crime analysts to discover crime patterns, implement corrective strategies, optimize resource allocation and to develop crime prevention measures. Students will use ArcGIS to analyze crime series, conduct problem analysis, study crime trends, and address deployment issues as they relate to decision making in law enforcement. Students should have a working knowledge of Windows to be successful in this course.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

### **GIS 290** **Cooperative Work Experience/Internship for Geographic Information Systems** **Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of GIS and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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## **GEOGRAPHY**

### **Division of Mathematics & Sciences**

#### **GEOG 101** **Introduction to Physical Geography**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*

*Transfers to: UC, CSU*  
Introduction to Physical Geography is a general education course that introduces students to the natural processes that shape the earth. Weather and climate, landforms and volcanoes, glaciers, rivers and coastal phenomena are among the topics explored. This course is for any student interested in the physical processes that shape land masses.

**3 Units**  
**54 Lecture hours**

#### **GEOG 101L** **Introduction to Physical Geography Laboratory**

*Prerequisite/Corequisite: GEOG 101*

*Transfers to: UC, CSU*  
The physical geography laboratory is designed to acquaint students with the methods, techniques and procedures used by geographers in the study and analysis of the physical environment. Students will use maps, the internet and other tools to work with real-world geographic data. This course fulfills the general education lab requirement in physical sciences when taken with or after GEOG 101.

**1 Unit**  
**54 Lab hours**

#### **GEOG 102** **Introduction to Cultural Geography** *Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

Introduction to Cultural Geography is a general education course that introduces students to the basic elements of culture. Population growth, migration, ethnicity, language, religion, folk and popular culture, and settlement forms are among the topics presented. This course may be of interest to students considering the field of elementary teaching, ecology, social science, or travel related vocations.

**3 Units**  
**54 Lecture hours**

#### **GEOG 103** **World Regional Geography**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*  
World Regional Geography explores the world's geographic regions, including Sub-Saharan Africa, North Africa, Southwest Asia, China, Southeast Asia, Middle America, South America, Japan, Europe, and Russia. This course describes the cultural, economic and environmental aspects of each of these geographic realms. It provides a geographic perspective that will enhance global awareness and geographic literacy.

**3 Units**  
**54 Lecture hours**

#### **GEOG 299** **Directed Study: Geography**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may

not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## GEOLOGY

Division of Mathematics & Sciences

### GEOL 150

#### Physical Geology

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: UC, CSU*

Physical Geology, which fulfills the physical science general education requirement, is the study of the materials that our beautiful Earth is made out of, as well as the processes and systems operating within the planet and on its surface. Earthquakes, volcanoes, oil, beaches, tsunamis, rocks, rivers, glaciers, plate tectonics, minerals, continent and mountain building are among the many diverse topics that will be explored.

**3 Units**  
**54 Lecture hours**

### GEOL 151

#### Physical Geology Laboratory

*Prerequisite/Corequisite: GEOL 150*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: UC, CSU*

Physical Geology Laboratory engages students with a "hands-on" review of the principles presented in GEOL 150 and their application to everyday life. Laboratory exercises will include (but are not limited to) earthquake analysis, the physical properties of minerals, igneous, metamorphic and sedimentary rocks, topographic and geologic map reading, stream, glacial, desert, coastal and tectonic landform process analysis and a field study in the Rio Hondo Canyon.

**1 Unit**  
**54 Lab hours**

### GEOL 153

#### Earthquakes

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: UC, CSU*

"Earthquakes" examines the origin, mechanics, distribution, and effects of tremors. Spectacular examples of historical earthquakes are reviewed, as are such topics as plate tectonics, earthquake prediction, structural risk, fault anatomy, paleoseismology, tsunamis, magnitude scales, earthquake location, and safety - as well as a survey of southern California's major fault systems and damaging historical quakes. This course is designed as an elective credit for geology majors and interested students.

**3 Units**  
**54 Lecture hours**

### GEOL 257

#### Geology of California

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: UC, CSU*

Geology of California looks at how our state was assembled, as well as its beautiful mountains, deserts, volcanoes, rivers, and other landforms. It examines the dynamic micro and mega processes that created these features as well as the varied rocks, minerals, structure and stratigraphy that underlie them. This course is designed as an elective credit for Geology majors and interested students.

**3 Units**  
**54 Lecture hours**

### GEOL 299

#### Directed Study: Geology

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## HEALTH SCIENCE

Division of Health Sciences  
& Nursing

### HS 045

#### Math for the Health Care Professional

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or MATH 030D or MATH 033 or appropriate assessment*

This is a basic course that focuses on

mathematical computation and application within the health care setting. Topics covered within this course include drug dosages, calculation of intake and output, weights and measures, temperatures, intravenous infusion rates and conversions necessary for safe employment in the healthcare setting. This course is an elective course for students wanting to pursue a career in the healthcare industry.

**1 Unit**  
**18 Lecture hours**

### HS 050

#### Nurse Assistant Pre-Certification Training Course

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment*

This course is designed for students who have expressed an interest in an entry level nursing course. This course meets Title 22 regulations for taking care of the geriatric population in a long term care setting, utilizing skills in basic care, emergency care and communication. The Nurse Assistant Pre-Certification training course consists of a combination of 64 hours of classroom instruction and 120 hours of supervised clinical practice in long term facilities. This course prepares the student to take the California state certification exam to become a Certified Nurse Assistant (CNA). After obtaining the state certification, the student may find employment in the acute care, long term care or assisted living settings. According to Title 22 regulations, the student who has completed the training program (HS 050) may take the competency state exam. If the student fails the state exam, they may repeat the exam two times before they must take this entire training program (HS 050) again.

**5.5 Units**  
**64 Lecture hours**  
**120 Lab hours**

### HS 051

#### Certified Nurse Assistant Acute Care Training Course

*Prerequisite: Nurse Assistant Pre-Certification Training Course/State Certification*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed for students who are Certified Nurse Assistants that wish to learn the basic nursing skills and duties in the acute care setting with additional emphasis on the specialized acute care areas such as medical/surgical, orthopedics, pediatrics and obstetrics. The Certified Nurse Assistant Acute Care course consists of a combination of 24 hours classroom instruction and 48 hours supervised clinical practice in the acute care hospital. This course includes communication, patient assessment, observation and reporting training as well as reinforcement

of Certified Nurse Assistant basic-care procedures.

**2 Units**

**24 Lecture hours**

**48 Lab hours**

### HS 052

#### Home Health Aide Training Course

*Prerequisite: Nurse Assistant Pre-Certification Training Course/State Certification*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed for students who are Certified Nurse Assistants that wish to learn how to provide personal care in the home care setting for those who are unable to do it for themselves and/or promote the recovery, safety and comfort of the patient. Additional emphasis on rehabilitative nursing care, family relationships and the impact of long-term illness on the family as well as the client will be included. The Home Health Aide training course consists of a combination of 24 hours classroom instruction and 48 hours supervised clinical practice in the Assisted Living setting. This course meets Title 22 regulations for Home Health Aides training programs.

**2 Units**

**24 Lecture hours**

**48 Lab hours**

### HS 054

#### Beginning Terminology for Healthcare Workers

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course covers the basic knowledge and understanding of medical language, terminology, and basic human anatomy. The student will learn word parts, prefixes, suffixes, word roots and will review the body systems. Anatomical, physiological and pathophysiological terms will also be defined. This is an entry level course for students interested in the health care field and is highly recommended prior to enrolling in any health related course.

**3 Units**

**54 Lecture hours**

### HS 060

#### Health Science Core

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment*

This is a basic course which focuses on medical terminology, normal body structures and functions, the principles of nutrition, and the relationship of nutrition to health. It provides a strong foundation for all students entering the health care field. This course is a prerequisite for the Vocational Nursing Program.

**5 Units**

**90 Lecture hours**

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## HEAT & FROST

Division of Career &  
Technical Education

### HEFR 001

#### Industry and Safety Orientation

*Prerequisite: Indentured Apprentice with the State of California*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the state of California who are interested in the heat and frost insulators industry. Topics include orientation to the trade, industry safety, job-site safety, insulation, pipe systems, OSHA, refinery safety, boom and scissor lift safety, and duct systems.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 002

#### Piping Systems

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include insulation materials, techniques, finishes, piping systems, fireproofing, hand tools, fall protection, and equipment used in the field.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 003

#### Boiler Insulation

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of heat and frost insulators industry. Topics include boilers, insulating techniques, stacks, breechings, hi-ribb lath insulation, finishing, ship-yard orientation, pen welding, safety, first-aid, confined space, and fittings.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 004

#### Mathematics

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include whole numbers, fractions, decimals, basic math functions, curves and angles, drawings, estimating, energy appraising, insulation certifications, and measurements.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 005

#### Mechanical Piping Insulation

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include heat transfer, general insulating methods, materials, application of insulation materials, coatings, coverings for pipes and fittings, attachment methods, mold recognition and abatement, and finishing for pipes in various thermal ranges.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 006

#### Foam and Firestopping Insulation

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include metal cutting, fittings, band saws, foam materials, spray equipment operations, firestopping insulation, and maintenance and repair of foam application equipment.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 007

#### Blueprint Reading

*Prerequisite: HEFR 001; Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include introduction to blueprint reading, general arrangements, symbols, industry standards, insulation drawings, isometric, industry certifications, and shop drawings.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

### HEFR 008

#### Prefabricated Buildings

*Prerequisite: HEFR 001, Indentured Apprentice with the State of California*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the heat and frost insulators industry. Topics include insulation, design of walls, prefabricated metal buildings, prefabricated metal buildings, hazardous materials, and storage tank insulation.

**6 Units**

**90 Lecture hours**

**72 Lab hours**

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# HEAVY EQUIPMENT MAINTENANCE

Division of Career &  
Technical Education

## HEM 040 Introduction to Heavy Equipment Maintenance

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This introductory course is designed to provide the student with the fundamentals of operations for the various systems of Heavy Duty construction equipment. Students will learn basic tool and equipment use and how to safely perform many basic repair and maintenance operations. This course is first in a series of Heavy Duty Equipment Maintenance classes and is designed for the student who wants to enter the field of Heavy Duty Equipment Maintenance and repair.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 041 Introduction to Heavy Equipment Maintenance Electrical Fundamentals

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This introductory course is designed to provide the student with the fundamentals of operations of the various principles of heavy equipment electronics. Topics covered include electrical theory, fundamentals of circuit construction, wire repair techniques, semiconductors, basic circuits including (IC), types of output signals, DVOM usage, battery, charging and starting systems. A demonstration on the ATECH circuit board will be used to illustrate electrical principles including strategy-based diagnostics.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 042 Heavy Equipment Air Conditioning

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to provide instruction on the principles of heavy equipment heating and air conditioning systems and for students who are interested in entering the field of Heavy Duty Equipment Maintenance & Repair. Students will be given the opportunity to earn their certification license (EPA Rule 1411). This course is also designed to prepare the student/service technician to understand principles of heating and air-conditioning systems, components, functions and service of these systems.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

## HEM 043 Heavy Equipment Hydraulic Fundamentals

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is intended for students entering the field of Heavy Equipment Maintenance and Repair and is designed to teach basic hydraulic fundamentals. Emphasis will be placed on the correct identification of various valves, pumps, hydraulic symbols, oil flow, and the proper operation of hydraulic systems.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

## HEM 044 Heavy Equipment Diesel Engine Fundamentals

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is intended for students entering the field of Heavy Equipment Maintenance and is designed to provide an introduction of diesel engines. The course provides an introduction of diesel engines, service department skills and expectations, and specific instruction on heavy equipment maintenance. The design and construction of diesel engines, principles and theories of operation, and disassembly/reassembly of engine components will be covered. Instruction on technical reference materials, parts and service books, computer systems and programs used by the service technicians will be covered.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 045 Heavy Equipment Powertrain Fundamentals

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is intended for students entering the field of Heavy Equipment Maintenance and Repair or students that are currently in the industry looking to advance their knowledge of Heavy Equipment Maintenance and Repair. This course will provide instruction on the principles of heavy equipment powertrain fundamentals. Instruction on technical reference materials, parts and service books, computer systems and programs used by the service technicians will be covered.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 046 Heavy Equipment Fuel Systems & Performance

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is intended for students entering the field of Heavy Equipment Maintenance and Repair or students that are currently in the

industry looking to advance their knowledge of Heavy Equipment Maintenance and Repair. This course will provide instruction on the principles of heavy equipment diesel fuel systems and performance. Instruction on technical reference materials, parts and service books, computer systems and programs used by the service technicians will be covered.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 047 Heavy Equipment Machine Specific Instruction

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; HEM 045*

This course is intended for students entering the field of Heavy Equipment Maintenance and Repair or students currently working in industry looking to advance their knowledge of Heavy Equipment Maintenance and Repair. The course will provide operational and safety instructions on a variety of heavy equipment and material handling machinery. Upon completion of this course students will receive a safety certification certificate for Forklift Operator Safety Training in compliance with OSHA (Section 1910.178L) and Cal/OSHA title 8 (Section 3668).

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

## HEM 048 Heavy Equipment Powertrains II

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; HEM 045*

This course is intended for students with basic knowledge in the field of Heavy Equipment Maintenance and Repair or students that are currently working in the industry who are looking to advance their skills in Heavy Equipment Maintenance and Repair. This course will provide instruction on the advanced principles of Heavy Equipment Powertrain Maintenance and Repair. The HEM 048 course will focus on heavy equipment powertrain components and how power flows from the engine to the ground. Instruction on technical reference materials, parts and service books, computer systems and programs used by the service technicians will be covered.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

## HEM 049 Heavy Equipment Hydraulics II

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; HEM 043*

This course is intended for students with basic knowledge in the field of Heavy Equipment Maintenance and Repair or incumbent worker/students that are currently in the industry looking to advance their knowledge of Heavy Equipment Hydraulics Systems Operation

and Maintenance. This course will provide instruction on the advanced principles of Heavy Equipment Hydraulics, Components, Operation and Maintenance. The HEM 049 course will focus on heavy equipment hydraulic components operation with an emphasis on electro-hydraulic control systems, flow control and systems cleaning and maintenance. Instruction on technical reference materials, parts and service books, computer systems and programs used by the service technicians will be covered.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**HEM 290**  
**Cooperative Work Experience/  
 Internship for Heavy Equipment  
 Maintenance & Repair Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business and industrial establishments under the supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the heavy equipment maintenance field and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
 1 Unit/60 hours; 2 Units/120 hours;  
 3 Units/180 hours; 4 Units/240 hours  
**Student Paid Internship:**  
 1 Unit/75 hours; 2 Units/150 hours;  
 3 Units/225 hours; 4 Units/300 hours  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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## HEAVY EQUIPMENT TECHNOLOGY

Division of Career &  
 Technical Education

**HET 050**  
**Heavy Equipment Electrical  
 Diagnosis**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; HET 041*  
*This course is designed to familiarize the student with the heavy equipment's electrical and electronic systems.*

Topics include review of electrical theory, circuit faults, electrical and electronic components usage and diagnostics, computers, sensors, actuators, and data communications. A-Tech simulator boards will be used to

illustrate different component functions. In addition, the students will be introduced to the strategy based diagnostics, including troubleshooting electrical problems using live equipment.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

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## HISTORY

### Division of Behavioral & Social Sciences

**HIST 101**  
**History of World Civilization to the  
 17th Century**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of the political, economic and social development of world civilization up to the 17th century. Special emphasis is placed on the origins of the earth's principal centers of civilization, their subsequent interaction, and the emergence of a world economic, political, and intellectual order. This course is designed for the student who wishes to increase their understanding and appreciation of cultural, political, and intellectual diversity, as well as the process of intercultural interaction.

**3 Units**  
**54 Lecture hours**

**HIST 102**  
**History of World Civilization, 1500 to  
 the Present**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of the political, economic, and social development of world civilization from 1500 to modern times. Special emphasis is placed on the origins and development of the world economic system and the corresponding cultural, intellectual, and social currents that have characterized most of the world's leading societies since 1500. This course is intended for the student who wants to increase their understanding of and appreciation of both the diversity and the unity of the modern world.

**3 Units**  
**54 Lecture hours**

**HIST 122**  
**History of Mexico**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines the cultural, social, and political history of Mexico from pre-Columbian to modern times. The course will cover pre-Columbian Mesoamerica, the Spanish conquest and the colonial period, and the national period, with special emphasis given to Mexico's relations with the United States and its place and role in the world community. This course is designed for students

interested in understanding Mexico as a nation and is also recommended for all history and most social science majors.

**3 Units**  
**54 Lecture hours**

**HIST 131**  
**History of the North American Indian**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course surveys the struggle of Native Americans to maintain their culture in the face of invasion and changing technology. It explores government Indian policies of removal, pacification, annihilation and assimilation, and considers present issues facing Native Americans today. This course is intended for students who wish to understand the role of Native Americans in the historical development of North America.

**3 Units**  
**54 Lecture hours**

**HIST 143**  
**History of the United States to 1877**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of United States history from Native American origins to post Civil War Reconstruction. Social, economic, political and cultural developments are explored with an emphasis on the independence movement, Revolutionary War, the new Republic, westward expansion and the Civil War. This course is designed for students interested in the foundational history of the United States. It is recommended for all history majors and fulfills the CSU/UC American Institutions requirement and the American Institutions requirement for the Associate degree.

**3 Units**  
**54 Lecture hours**

**HIST 143H**  
**History of the United States to 1877**

*Prerequisite: ENGL 101 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of United States history from Native American origins to post Civil War Reconstruction. Social, economic, political and cultural developments are explored with an emphasis on the independence movement, Revolutionary War, the new Republic, westward expansion and the Civil War. This course is designed for students interested in the foundational history of the United States. It is recommended for all history majors and fulfills the CSU/UC American Institutions requirement and the American Institutions requirement for the Associate degree. This course is intended for those who meet Honors Program requirements.

**3 Units**  
**54 Lecture hours**

**HIST 144****History of the United States Since 1865**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit:\*), CSU (\*Students will receive credit from UC for only one of the following courses: HIST 144 or HIST 144H)*

This course provides a survey of the political, social, economic, and cultural development of the United States from Reconstruction (1865) to the present. Some topics addressed are the socio-political and economic impact of Reconstruction, the American West, capital and labor in the age of enterprise, America as an emerging world power, World War I, World War II, the Vietnam Era, the Cold War, the new world order, Clinton, and the Bush Administration to the present. This course fulfills the American Institutions requirement for the Associate Degree. It is also recommended for all History majors.

**3 Units**

**54 Lecture hours**

**HIST 144H****History of the United States Since 1865**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: HIST 144 or HIST 144H)*

This course provides a survey of the political, social, economic, and cultural development of the United States from Reconstruction (1865) to the present. Some topics addressed are the socio-political and economic impact of Reconstruction on modern American society, the American West, capital and labor in the age of enterprise, America as an emerging world power, World War I, World War II, the Vietnam Era, the Cold War, the new world order, Clinton, and the Bush Administration to the present. This course fulfills the American Institutions requirement for the CSU and Associate Degree. It is also recommended for all History majors. This course is intended for those who meet Honors Program requirements.

**3 Units**

**54 Lecture hours**

**HIST 158****History of Minorities: African Americans and American Indians**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is a survey of the role minorities have played in the historical development of the United States from the earliest times to the present, with an emphasis on the twentieth century. The course begins with a study of racism, followed by the history and cultural contributions of the American Indian and the African American. This course fulfills the American Institutions requirement

for the Associate Degree. This course is intended for those who desire a better understanding of the history of minorities in the United States.

**3 Units**

**54 Lecture hours**

**HIST 159****History of Minorities: Mexican Americans, Asian Americans and American Women**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: HIST 159 or HIST 159H)*

This course surveys the roles selected minorities have played in the historical development of the United States from the earliest times to the present. Emphasis is placed on the history and cultural contributions of Mexican Americans, Asian Americans, and American women. This course is intended for those wishing to fulfill the American Institutions requirement for the Associate degree and CSU and those who desire a better understanding of the history of minorities in the United States.

**3 Units**

**54 Lecture hours**

**HIST 159H****History of Minorities: Mexican Americans, Asian Americans and American Women**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: HIST 159 or HIST 159H)*

This course surveys the roles selected minorities have played in the historical development of the United States from the earliest times to the present. Emphasis is placed on the history and cultural contributions of Mexican Americans, Asian Americans, and American women. This course is intended for those wishing to fulfill the American Institutions requirement at Rio Hondo and those who desire a better understanding of the history of minorities in the United States. This course is intended for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

**HIST 167****History of California**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course provides an overview of California history from the first aboriginal inhabitants to modern times. Cultural, political, social and economic development will be addressed in the context of history. The development of contemporary institutions and the historical context of current issues will be addressed. This

course is suitable for students seeking further understanding of California's past and present, and those preparing for a career in teaching at the elementary level.

**3 Units**

**54 Lecture hours**

**HIST 170****Women in American History**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is a survey of the role, status, and contributions of women of different ethnic groups and social classes in American society from earliest times to the present, with an emphasis on the twentieth century. Special attention will be given to an understanding of how gender has shaped women's options and expectations within the private and public spheres of society. This course is designed for the student who wants to learn more about women's history in America and is recommended for all history majors.

**3 Units**

**54 Lecture hours**

**HIST 299****Directed Study: History**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## HUMAN SERVICES

Division of Behavioral  
& Social Sciences

### HUSR 111 Human Services in Contemporary Society

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to the history and philosophy of human services in contemporary society. The function and objectives of human service organizations as well as the qualifications of the professional will be emphasized. A survey of the populations served in the field will focus on cultural, social, economic and historical trends. The course is designed for students pursuing careers in social work, counseling or community organizing.

**3 Units**  
**54 Lecture hours**

### HUSR 118 Chemical Dependency: Intervention, Treatment, and Recovery

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides an introduction to current perspectives with respect to the management of chemical dependency. Through an examination of alcoholism as a model of drug dependence, the treatment of and recovery from such disorders will be explored from two divergent perspectives: the reformatory and the transformative. Current treatment modalities will be compared and contrasted in terms of their view of the individual in both the social and clinical context. The class experience itself will serve as an intervention by challenging students to examine their existing ideas about treatment and recovery from substance use disorders. Suitable for students interested in furthering their understanding of substance dependence and those interested in working with populations recovering from or at risk for such problems.

**3 Units**  
**54 Lecture hours**

### HUSR 122 Introduction to Group Leadership and Process

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides an introduction to the dynamics of group interaction. The individual's firsthand experience is emphasized as the group studies itself under supervision. The factors involved in problems of communication, effective emotional responses, and personal growth will be highlighted. Group process will be examined as a means of changing behavior.

Suitable for students interested in furthering their understanding of group dynamics and those interested in supervising groups dedicated to achieving behavioral change.

**3 Units**  
**54 Lecture hours**

### HUSR 124 Introduction to Case Management and Documentation

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course introduces students to case management and documentation in a variety of settings. Students will study the purpose, function, and rationale for case management. In addition, the documentation of client clinical records will be covered, emphasizing the taking of social histories and the writing of treatment plans. The professional guidelines necessary for working with clients in a social services setting will also be covered, providing the student with an understanding of issues related to ethics, client rights, and confidentiality. This class is designed for students interested in working in a social services setting.

**2 Units**  
**36 Lecture hours**

### HUSR 126 Counseling the Family of the Addicted Person

*Advisory: ENGL 035 OR ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides an overview of the systems approach to counseling the chemically dependent family. Alcoholism will be used as a model for developing counseling skills through the analysis and examination of the relationships that develop in the addicted family system. An experiential format will be employed as students participate in exercises that lead to the development of the necessary skills. This course is designed for those working with or preparing to work with the drug dependent and those around them.

**3 Units**  
**54 Lecture hours**

### HUSR 130 Essential Counseling Skills

*Advisory: ENGL 035 OR ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course focuses on critical counseling skills and strategies within a multicultural context. The course provides a vital orientation to the helping process and the counseling profession. Current issues within the counseling profession, such as diversity and multiculturalism, are discussed and integrated throughout the course. A unique focus is given to the student's growth and development as a counselor and how the student can best use supervision in this developmental process. This course would be of benefit

to anyone working in a human service or social services setting.

**3 Units**  
**54 Lecture hours**

### HUSR 199 Fieldwork in Human Services

*Prerequisite: PSY 101 or SOC 101 with a minimum grade of "C" or better, OR consent of instructor*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course offers the student a supervised field experience in a community organization, agency, or institution, allowing the student to apply knowledge and learn new skills outside of the classroom environment. A weekly class meeting provides the academic element to this experiential course offering and reinforces the application of concepts gained in the prerequisite course or courses. This course is designed to provide the student with an opportunity to develop skills that would facilitate gaining employment in the human services field.

**3 to 4 Units**  
**18 Lecture hours**  
**120 to 225 Lab hours**

### HUSR 230 Drug Studies Seminar and Internship

*Prerequisite/Corequisite: HUSR 122, HUSR 124, HUSR 130*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

It is recommended that this course be taken in the final semester of the Drug Studies Program and provides the student with work experience in a drug treatment facility. The student will apply the concepts and skills gained through their coursework as they serve as an intern in a setting where drug dependent individuals are served. The seminar will focus on ethics, the further development of counseling skills, and the use of community resources. Students must meet the requirements of the internship facility.

**Student Unpaid Internship: 120 hours**  
**Student Paid Internship: 150 hours**  
**3 Units**

**16 Lecture hours**  
**120 to 150 Other hours**

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## HUMANITIES

Division of Behavioral  
& Social Sciences

### HUM 110 Survey of Humanities

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides an interdisciplinary presentation of cultural forces, providing the student with a comprehensive view of the most vital artistic, literary, philosophical, reli-

gious and architectural movements within the Western, Eastern and Meso-American traditions from the Egyptians to the 1500s. This course is intended for students who wish to further their understanding of the major cultural developments from around the world.

**3 Units**  
**54 Lecture hours**

**HUM 111**  
**Survey of Humanities**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides an interdisciplinary presentation of cultural forces, providing the student with a comprehensive view of the most vital artistic, literary, philosophical, religious, scientific and architectural movements within the Western, Eastern and Latin American traditions from the Renaissance to the 20th century. This course is intended for students who wish to further their understanding of major cultural developments around the world.

**3 Units**  
**54 Lecture hours**

**HUM 125**  
**Introduction to Mexican Culture**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: HUM 125 or HUM 125H)*

This course provides an interdisciplinary presentation of vital artistic, literary, architectural, musical, political, religious and historical movements within Mexico spanning from Pre-Cortesian to contemporary times. This course is designed for students who wish to further their understanding of major Mexican cultural and historical developments.

**3 Units**  
**54 Lecture hours**

**HUM 125H**  
**Introduction to Mexican Culture**

*Prerequisite: ENGL 101 with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: HUM 125 or HUM 125H)*

This course provides an interdisciplinary presentation of vital artistic, literary, architectural, musical, political, religious and historical movements within Mexico spanning from pre-Cortesian to contemporary times. This course is designed for students who wish to further their understanding of major Mexican cultural and historical developments. This course is designed for students eligible for the Honors Program.

**3 Units**  
**54 Lecture hours**

**HUM 130**  
**Contemporary Mexican-American Culture**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides a contemporary interdisciplinary examination of the most vital Mexican-American literary, artistic, musical, theatrical, social, political and historical movements. This course is designed for students who wish to further their understanding of major Mexican-American cultural contributions to contemporary society.

**3 Units**  
**54 Lecture hours**

**HUM 140**  
**Splendors of Asia**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who wish to further their understanding of major Asian cultural contributions to classic and contemporary society. The student will be provided with an interdisciplinary examination of the most vital Asian literary, artistic, philosophical, architectural, religious, political and historical movements.

**3 Units**  
**54 Lecture hours**

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**ITALIAN**  
**Division of Communications & Languages**

**ITAL 101**  
**Italian 101**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is an introduction to the essentials of the Italian language. Conversational, reading, and writing skills will be stressed. In addition to classroom instruction, students receive intensive individualized oral-aural practice in the language laboratory utilizing audio cassettes and computer programs. Relevant aspects of the cultures and civilization of the Italian-speaking will be included in the course.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

**ITAL 102**  
**Italian 102**

*Prerequisite: ITAL 101*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a continuation of ITAL 101; in it the study of Italian grammar is completed. Conversational, reading, and writing skills will continue to be stressed. Student will receive

intensive, individualized, oral-aural practice in the language laboratory using audio materials and computer programs. Additional aspects of the culture and civilization of the Italian-speaking population will be presented.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

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**JAPANESE**  
**Division of Communications & Languages**

**JAPN 101**  
**Japanese I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course provides the student with an introduction to the Japanese language and culture. The course stresses oral and written proficiency through fundamental use of the Japanese language as well as the Hiragana and Katakana script. Students will also receive an introduction to Kanji characters. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. Various facets of Japanese history, culture, and civilization will also be analyzed via cross-cultural comparisons. This course is intended for those interested in learning to speak Japanese as well as for those seeking a degree in the Japanese language.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

**JAPN 102**  
**Japanese II**

*Prerequisite: Completion of Japanese 101 with a "C" or better, or completion of 2 years high school Japanese with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*  
This course is a continuation of the essentials of the Japanese language. The course stresses oral and written proficiency through fundamental use of the Japanese language as well as the Hiragana and Katakana script. Students will further their knowledge of Kanji characters. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. Various facets of Japanese history, culture, and civilization will also be analyzed via cross-cultural comparisons. This course is intended for those interested in learning to speak Japanese as well as for those seeking a degree in the Japanese language.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

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# JOURNALISM

Division of Communications  
& Languages

## JOUR 110 Digital Photo Journalism

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides an introduction to students in the process of taking photographs using digital cameras, digital video cameras, and digital printing devices, as well as computer skills, photo-composition, printing and scanning techniques using Photo-shop for the use of publication, and other computer skills related to contemporary photo journalism. Assignments may include work for college publications. Class is recommended for students majoring in journalism or photography.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

## JOUR 120 Communications Reporting and Writing

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

The course is an introduction to the writing and editing techniques used in the newspaper industry, with an emphasis on gathering information and the principles of clarity and conciseness. Students will use computers during class and lab times. This course is intended for students who are pursuing the Associate of Science Degree/Certificate of Achievement in Mass Communications with either Mass Media or Print Media Specializations.

**3 Units**  
**54 Lecture hours**  
**18 Lab hours**

## JOUR 147 Broadcast News

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is for students interested in writing for radio and television and is an introduction to the principles and techniques of broadcast news with special reference to the gathering and writing of news for radio and television, script writing, interviewing, and the procedures and techniques of presenting the news for broadcast. Each student will be assigned to write, direct, edit, and oversee the production of a video broadcast for the college's digital newspaper during the semester.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

## JOUR 220 Advanced Reporting and Writing

*Prerequisite: JOUR 120 with a grade of "C" or better*  
*Transfers to: CSU*

This course is designed to meet lower division requirements for Journalism majors which are transferable to four-year institutions. JOUR 220 is a continuation of JOUR 120 with emphasis on improvement of basic skills. This course concentrates on writing and editing of more advanced news and feature stories and other factual forms for newspapers. Students will study methods of preparing material intended for publication.

**3 Units**  
**54 Lecture hours**  
**36 Lab hours**

## JOUR 230 Magazine Production

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course includes writing news, news features, profile features, commentary, and photography for publication in the college magazine, La Cima. Students will learn copy-editing, layout/computer design, Photoshop, digital photography, and advertising fundamentals through the process of writing, editing and laying out the college magazine. Students may take this course once and repeat it one more time for credit.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

## JOUR 231 Digital Magazine Production

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students wanting to learn the production and management techniques of the college online magazine La Cima as an online publication. Students will be shown basic techniques for writing and producing a campus online magazine. Students will be shown through lecture and demonstration the proper techniques for gathering editorial, photo, layout, and video contents for an online magazine and entering and placing the information on the pages of La Cima online.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

## JOUR 241 Newspaper Production I

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students wanting to learn production and management techniques for a college newspaper. Students will be shown basic techniques for writing and producing the campus newspaper,

El Paisano. Students will be shown through lecture and demonstration the proper techniques for gathering editorial, photo, and layout content for the newspaper, as well as copy editing and proofreading.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

## JOUR 242 Digital Newspaper Production I

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students wanting to learn the production and management techniques of the college newspaper El Paisano as an online publication. Students will be shown basic techniques for writing and producing a campus online newspaper. Students will be shown through lecture and demonstration the proper techniques for gathering editorial, photo, layout, and video content for an online newspaper and entering and placing the information on the pages of El Paisano online.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

## JOUR 243 Newspaper Production II

*Prerequisite: JOUR 241*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students wanting to continue in an advanced degree the production and management techniques of the college newspaper. Students will continue writing and producing El Paisano, the campus newspaper, through continued lectures and advanced demonstrations and the proper techniques for writing, proofreading, layout by learning Quark Express and photo enhancements through Photoshop. Students will be expected to serve in leadership roles and cover a major or public affairs beat.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

## JOUR 244 Digital Newspaper Production II

*Prerequisite: JOUR 242*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is intended for students wanting to continue in an advanced degree the production and management techniques of the college newspaper El Paisano as an online publication. Students will continue to work on writing for the online newspaper but will learn, by hands-on development, actual video broadcasts by using station video equipment that will encompass the entire Rio Hondo campus and areas of interest within the community. Students will also

work on KRHC, the student radio station to develop audio news programs for the station. Those students wishing to may also develop photo slide presentations of action taken through student activities on campus for the online publication.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**JOUR 290**  
**Cooperative Work Experience/  
Internship for Journalism Related  
Fields**

*Prerequisite: JOUR 120*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in journalism related fields under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in an area of journalism related fields and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose intended job is related to the field of journalism and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**JOUR 299**  
**Directed Study: Journalism**

*Transfers to: UC, CSU*  
Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study / directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must

be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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**LANDSCAPE**  
**Division of Career &  
Technical Education**

**LAND 095**  
**Introduction to Landscape Design &  
Maintenance**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; ENGT 105*  
This introductory landscape design course is designed for the non-scientist and specifically for amateur garden enthusiasts interested in learning landscape design from a professional landscape architect. The class is a comprehensive overview of general landscape design including topics of landscape design, irrigation, plant identification and maintenance. The class sessions are combination lecture lab with hands-on design lessons and plant identification. There will be a field trip to local nurseries or demonstration gardens.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**LAND 102**  
**Introduction to Landscape Architecture  
& Design**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ENGT 105*  
*Transfers to: CSU*  
This introductory course is for students interested in the field of Landscape Architecture or Landscape Design. Fundamental principles and concepts essential to landscape design development will be introduced through lectures, readings, discussions, field trips, and assignments. Natural and human determinants that shape the landscape will be explored in addition to the study of the theory, history, and role of the landscape architecture profession in environmental design.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

**LAND 103**  
**Landscape Architecture Theory and  
Form**

*Prerequisite: LAND 102*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; ENGT 101; ENGT 105*  
*Transfers to: CSU*  
This is a continuation course to LAND 102, Introduction to Landscape Architecture and Design. This

course expands upon fundamental landscape design principles and concepts. The course examines theory and methods pertaining to landscape architecture design and site planning. Study and design of landscape will be conducted from small local scale to larger regional scale through in-class assignments, multi-week projects, model-making, and readings. Comprehension of topography and design of landform through 2D and 3D model studies will also be included.

**4 Units**  
**54 Lecture hours**  
**54 Lab hours**

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**LATIN**

**Division of Communications  
& Languages**

**LATN 101**  
**Latin I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*  
Latin 101 introduces students to the classics, enhances their understanding of basic grammar, exposes them to authentic pronunciation, increases their knowledge of vocabulary derivatives, and acquaints them with Roman history and culture. This class is designed for students who plan to major in Classics, History, Philosophy, or Languages and would also be important for those going into law, medicine, and other fields where Latinate terminology is common.

**3 Units**  
**54 Lecture hours**

**LATN 102**  
**Latin II**

*Prerequisite: Successful completion of LATN 101*  
*Transfers to: UC, CSU*  
Latin 102 increases students' understanding of the classics, enhances their understanding of grammar and vocabulary, exposes them to authentic pronunciation, increases their knowledge of vocabulary derivatives, and acquaints them further with Romance languages and the Latinate vocabulary of English. The history and culture of the Roman Empire, including the spread of the Empire, institutions, literature, and the arts will be further explored. This class is designed for students who plan to major in Classics, History, Philosophy, or Languages and would also be important for those going into law, medicine, and other fields where Latinate terminology is common.

**3 Units**  
**54 Lecture hours**

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## LIBRARY

### Division of Library & Instructional Support

#### LIB 101

##### Fundamentals of Library Research

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 100A*  
*Transfers to: UC, CSU*

This course promotes information literacy by introducing students to the resources available in an academic library, including books, online catalogs, online databases, and Web sources. Students learn how to define their research problem, apply appropriate search tools, analyze and evaluate information and search strategies, and use information ethically and legally. The critical thinking skills and research strategies learned in this class will benefit students who need to find information for college-level research assignments, career demands, and lifelong learning.

**3 Units**  
**54 Lecture hours**

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## LITERATURE

### Division of Communications & Languages

#### LIT 102

##### Approaches to Literature

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: LIT 102 or LIT 102H)*

This course is designed for students who wish to study the four general literary forms: poetry, drama, short story, and novel. Emphasis is placed on critical thinking, critical reading, and composing. Compositions will be based upon discussion, analysis and interpretations of literature, and upon the relationship of Western and Non-Western literature to contemporary thought.

**3 Units**  
**54 Lecture hours**

#### LIT 102H

##### Approaches to Literature

*Prerequisite: ENGL 101 with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: LIT 102 or LIT 102H)*

This course is designed for students who wish to study the four general literary forms: poetry, drama, short story, and novel. Emphasis will be placed on critical thinking, critical reading, and composing. Compositions will be based upon discussion, analysis and interpretations of literature, and upon the relationship of

Western and Non-Western literature to contemporary thought. This course is intended for students eligible for the Honors Program.

**3 Units**  
**54 Lecture hours**

#### LIT 110

##### Postcolonial Literature

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to postcolonial literature - the literature of peoples, nations, and cultures which have at one time in their history been colonized by another country. The course will explore the themes of identity formation and nationhood in works by African, South Asian, Middle Eastern, Latin American, and Caribbean authors. Assigned readings may come from a variety of genres including essays, short stories, novels, and poetry. This course is beneficial for English majors, future elementary and secondary teachers, and students interested in the broadening their knowledge of diverse literature.

**3 Units**  
**54 Lecture hours**

#### LIT 110H

##### Postcolonial Literature

*Prerequisite: ENGL 101 with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to postcolonial literature - the literature of peoples, nations, and cultures which have at one time in their history been colonized by another country. The course will explore the themes of identity formation and nationhood in works by African, South Asian, Middle Eastern, Latin American, and Caribbean authors. Assigned readings may come from a variety of genres including essays, short stories, novels, and poetry. This course is beneficial for English majors, future elementary and secondary teachers, and students interested in broadening their knowledge of diverse literature. This course is designed for students eligible for the honors program.

**3 Units**  
**54 Lecture hours**

#### LIT 112A

##### American Literature

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: LIT 112A or LIT 112AH)*

This course explores a range of American literature, with a focus on major texts and writers from the early settlement to 1865. Representative writers include Bradstreet, Bradford, Franklin, Douglass, Paine, Lincoln, Emerson, Thoreau, Poe, Melville, and Dickinson. Course reading and

writing assignments explore major cultural and historical themes, including the pre-colonial exploration of the Americas, Native American literary contributions, the Revolutionary and Civil Wars, transcendentalism, and romanticism. This course is designed for students interested in exploring various genres of literature, students interested in learning more about cultural expression in the Americas, and students majoring in English or Liberal Studies.

**3 Units**  
**54 Lecture hours**

#### LIT 112AH

##### American Literature

*Prerequisite: ENGL 101 with a grade "C" or better; READ 023 or appropriate assessment*

*Corequisite: ENGL 101 for new students*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: LIT 112A or LIT 112AH)*

This course explores a range of American literature, with a focus on major texts and writers from the early settlement to 1865. Representative writers include Bradstreet, Bradford, Franklin, Douglass, Paine, Lincoln, Emerson, Thoreau, Poe, Melville, and Dickinson. Course reading and writing assignments explore major cultural and historical themes, including the pre-colonial exploration of the Americas, Native American literary contributions, the Revolutionary and Civil Wars, transcendentalism, and romanticism. This course is designed for students interested in exploring various genres of literature, students interested in learning more about cultural expression in the Americas, and students majoring in English or Liberal Studies. This course is designed for students eligible for the honors program.

**3 Units**  
**54 Lecture hours**

#### LIT 112B

##### American Literature

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: LIT 112B or LIT 112BH)*

This course is designed for students interested in exploring American literature from the mid-nineteenth century to the present. It introduces students, through class discussions and written essays, to representative writers of this period such as Emily Dickinson, Mark Twain, Edith Wharton, Robert Frost, Zora Neale Hurston, William Faulkner, Ernest Hemingway, Tennessee Williams, Lorraine Hansberry, Henry David Hwang, Toni Morrison, Leslie Marmon Silko, Maxine Hong Kingston, Milcha Sanchez-Scott, and others.

**3 Units**  
**54 Lecture hours**

**LIT 112BH****American Literature**

*Prerequisite: ENGL 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: LIT 112B or LIT 112BH)*

This course is designed for students interested in exploring American literature from the mid-nineteenth century to the present. It introduces students, through class discussions and written essays, to representative writers of this period such as Emily Dickinson, Mark Twain, Edith Wharton, Robert Frost, Zora Neale Hurston, William Faulkner, Ernest Hemingway, Tennessee Williams, Lorraine Hansberry, Henry David Hwang, Toni Morrison, Leslie Marmon Silko, Maxine Hong Kingston, Milcha Sanchez-Scott, and others. This course is intended for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

**LIT 114****Children's and Adolescent Literature**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is an introduction to children's and adolescent literature in its three general literary forms: the short story (including myths, legends, fairy tales, and folk tales), the novel, and poetry. Stress is placed upon critical thinking, critical reading, and composing. This course will explore works of children's literature from ancient times to the present, analyze the literary elements of these works, assess their value for both children and adults, and examine the historical and cultural environments in which they were written, including but not limited to Asian, Latino, Native American, and African cultures. This course is beneficial for English majors, students planning to transfer to a university, parents, and future elementary and secondary teachers.

**3 Units**

**54 Lecture hours**

**LIT 114H****Children's and Adolescent Literature**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

This course is an introduction to children's and adolescent literature in its three general literary forms: the short story (including myths, legends, fairy tales, and folk tales), the novel, and poetry. Stress is placed upon critical thinking, critical reading, and composing. This course will explore works of children's and adolescent literature from ancient times to the present, analyze the literary elements of these works, assess their value for both children and adults, and examine the historical and cultural environments in which they were written, including but not limited to Asian, His-

panic, Native American, and African cultures. This course is beneficial for English majors, students planning to transfer to a university, parents, and future elementary and secondary teachers. This course is designed for students eligible for the honors program.

**3 Units**

**54 Lecture hours**

**LIT 117****Mexican Literature in Translation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course explores a range of Mexican literature in English translation, with a focus on major literary influences and achievements from the pre-Hispanic era to the twentieth century. Course reading and writing assignments explore indigenous literatures and myths, chronicles of the Spanish conquest, literature of the colonial period, high culture and folklore of the eighteenth century, political and modernist literature of the nineteenth century, and poetry and prose of the twentieth century.

This course is designed for students interested in exploring various genres of literature, students interested in learning more about Mexican cultural expression, and students majoring in Chicano Studies.

**3 Units**

**54 Lecture hours**

**LIT 117H****Mexican Literature in Translation**

*Prerequisite: ENGL 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course explores a range of Mexican literature in English translation, with a focus on major literary influences and achievements from the pre-Hispanic era to the twentieth century. Course reading and writing assignments explore indigenous literatures and myths, chronicles of the Spanish conquest, literature of the colonial period, high culture and folklore of the eighteenth century, political and modernist literature of the nineteenth century, and poetry and prose of the twentieth century.

This course is designed for students interested in exploring various genres of literature, students interested in learning more about Mexican cultural expression, and students majoring in Chicano Studies. This course is intended for students eligible in the honors program.

**3 Units**

**54 Lecture hours**

**LIT 130****Women and Literature**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course explores women writers, their lives, the roles they play in culture and society, and how they have

influenced the world. Students will examine topics such as female authorship, literary influence, evolution of technique, the effects of race and class, and the environments in which works were written, including but not limited to American, British, Asian, Hispanic, Native American, and African cultures. Stress is placed on critical thinking, critical reading, and composing. Feminist, literary, and political theory will be explored. Special emphasis may be placed on a period, genre, theme, or literary grouping. This course is beneficial for English majors, students planning to transfer to a university, and anyone interested in learning about women and literature.

**3 Units**

**54 Lecture hours**

**LIT 140****Introduction to the Novel**

*Prerequisite: ENGL 035 or ENLA 100 or appropriate assessment*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: LIT 140 or LIT 140H)*

This course introduces students to a variety of approaches to the novel. Course readings will focus on novels selected from different historical periods and within a variety of cultural traditions. Students will gain an understanding of the features that distinguish the novel as a literary genre: narrative structure, point of view, character development, setting, theme, style, imagery and symbol. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study.

**3 Units**

**54 Lecture hours**

**LIT 140H****Introduction to the Novel**

*Prerequisite: ENGL 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: LIT 140 or LIT 140H)*

This course introduces students to a variety of approaches to the novel. Course readings will focus on novels selected from different historical periods and within a variety of cultural traditions. Students will gain an understanding of the features that distinguish the novel as a literary genre: narrative structure, point of view, character development, setting, theme, style, imagery and symbol. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study. This course is intended for students eligible for the honors program.

**3 Units**

**54 Lecture hours**

**LIT 141****Introduction to Poetry**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course introduces students to a variety of approaches to poetry. Course readings will include poems on diverse topics representing the fundamental modes, historical periods, and cultural traditions. Students will gain an understanding of the features that distinguish poetry as a literary genre, including techniques of sound, tropes and figurative language, and thematic development. The course is appropriate for both English majors and those students who wish to expand their knowledge and appreciation of poetry.

**3 Units**

**54 Lecture hours**

**LIT 142****Introduction to Shakespeare**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students who wish to increase their knowledge and appreciation of Shakespeare's art, his life and times, and his exploration of the human condition. The major works of Shakespeare are explored in the context of the dramatic genre, the Elizabethan theater, and the social, religious, and political milieu of Renaissance England. Representative tragedies, comedies, histories, romances, poetry, and the sonnet cycle are studied.

**3 Units**

**54 Lecture hours**

**LIT 142H****Introduction to Shakespeare**

*Prerequisite:* ENGL 101 with a "C" or better

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students who wish to increase their knowledge and appreciation of Shakespeare's art, his life and times, and his exploration of the human condition. The major works of Shakespeare are explored in the context of the dramatic genre, the Elizabethan theater, and the social, religious, and political milieu of Renaissance England. Representative tragedies, comedies, histories, romances, poetry, and the sonnet cycle are studied. This course is intended for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

**LIT 143****Exploring Authors**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* CSU

This one-unit course is designed

for students who wish to study the literary works of one author in depth. Students will compare and contrast all genres and literary criticism of the author's works in class discussions and in essay form. Students should consult the class schedule for the author selection as it varies each semester.

**1 Unit**

**18 Lecture hours**

**LIT 143H****Exploring Authors**

*Prerequisite:* ENGL 101 with a "C" or better

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* CSU

This one-unit course is designed for students who would like the opportunity to study the literary works of one author in depth. Students will compare and contrast the author's works in class discussions and in essay form. Students should consult the class schedule for the author selection as it varies each semester. This course may be taken once and repeated two times for credit. This course is designed for students eligible for the Honors Program.

**1 Unit**

**18 Lecture hours**

**LIT 144A****World Literature**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course introduces students to a wide range of world literature from antiquity, the Middle Ages, and the Renaissance. Although the emphasis is on continental literature and Western civilization, the course may include significant works from African, Asian, Middle Eastern, and/or Latin American traditions. Course reading and writing assignments emphasize literary periods and literary history, the different genres of literary expression, and literature as a reflection of major cultural events and beliefs. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study.

**3 Units**

**54 Lecture hours**

**LIT 144B****World Literature**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course introduces students to a wide range of world literature from the seventeenth century to the present. Although the emphasis is on continental literature and Western civilization, the course may include significant works from African, Asian, Middle Eastern, and/or Latin American traditions. Course reading and writing assignments emphasize the European

Enlightenment, romanticism, realism, modernism, and literature as a reflection of major cultural events and beliefs. This course is designed for students interested in learning more about literary expression and students intending to major in a literary or arts-related field of study. LIT 144A need not be taken before LIT 144B.

**3 Units**

**54 Lecture hours**

**LIT 145****Introduction to the Short Story**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU

(\*Students will receive credit from UC for only one of the following courses: LIT 145 or LIT 145H)

This course is designed for students interested in exploring short fiction from a variety of different periods and traditions in order to increase appreciation, understanding, and enjoyment of its various forms and techniques. Students will compare and contrast authors' works in writing and class discussion. The course emphasizes the short story as a genre from the Nineteenth century to the present.

**3 Units**

**54 Lecture hours**

**LIT 145H****Introduction to the Short Story**

*Prerequisite:* ENGL 101 with a grade "C" or better

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU

(\*Students will receive credit from UC for only one of the following courses: LIT 145 or LIT 145H)

The course is designed for students interested in exploring short fiction from a variety of different periods and traditions in order to increase appreciation, understanding, and enjoyment of its various forms and techniques. Students will compare and contrast authors' works in writing and class discussion. The course emphasizes the short story as a genre from the Nineteenth century to the present. This course is designed for students eligible for the honors program.

**3 Units**

**54 Lecture hours**

**LIT 146A****British Literature**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students who are interested in learning about British literature from the Old English period to the beginning of the nineteenth century. The following major British writers will be discussed: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, Boswell, Fielding, and others.

**3 Units**

**54 Lecture hours**

**LIT 146AH****Survey of British Literature**

*Prerequisite:* ENGL 101 with a "C" or better

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students who are interested in learning about British literature from the Old English period to the beginning of the nineteenth century. The following major British writers will be discussed: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, Boswell, Fielding, and others. This course is designed for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

**LIT 146B****British Literature**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students interested in learning about British literature written from the beginning of the nineteenth century to the present. The following major British writers will be discussed: Austen, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, Eliot, and others.

**3 Units**

**54 Lecture hours**

**LIT 146BH****British Literature**

*Prerequisite:* ENGL 101 with a "C" or better

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students interested in learning about British literature written from the beginning of the nineteenth century to the present. The following major British writers will be discussed: Austen, Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats, Eliot, and others. This course is designed for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

**LIT 147****Cinema as Literature**

*Prerequisite:* ENGL 035 or ENLA 100 or appropriate assessment

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is for students interested in learning about the aesthetics of film making, especially with regard to adaptation of literature to the cinematic medium. Films will be analyzed and evaluated according to their historical, social, cultural, aesthetic, and technical significance. Both American and international film making will be covered.

**3 Units**

**54 Lecture hours**

**LIT 148****Introduction to Dramatic Literature**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course introduces students to a wide range of dramatic literature, from the plays of ancient Greece to contemporary drama. Students will study representative plays from several literary periods. Course reading and writing assignments emphasize dramatic form and structure, the aesthetics of drama, and drama as a reflection of major cultural events and beliefs. This course is designed for students interested in a detailed exploration of a specific genre of literature, students intending to major in a literary or arts-related field of study, and students intending to enter the teaching profession.

**3 Units**

**54 Lecture hours**

**LIT 149****Introduction to Chicana/Chicano Literature**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course explores a range of Chicana/Chicano literature, with a focus on major texts from 1848 to the present. Course reading and writing assignments explore major cultural themes, including identity issues. Assigned readings may be from a variety of genres including essays, poetry, fiction, oral histories, corridos, and autobiography by writers throughout the Southwest. This course is designed for students interested in exploring various genres of literature, students interested in learning more about Chicana/o cultural expression, and students majoring in Chicano Studies.

**3 Units**

**54 Lecture hours**

**LIT 299****Directed Study: Literature**

*Transfers to:* UC, CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations

with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

**LOGISTICS****Division of Business****LOG 101****Supply Chain Management**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042

*Transfers to:* CSU

This course is intended for students seeking a career in logistics or supply chain management. The course presents the tools and techniques for the design and improvement of any supply chain, through the optimal use of information, materials, and technology to improve efficiency and reduce costs. The student will examine the processes for planning, sourcing, making, delivering, and returning products in order to integrate suppliers and customers into an organization's supply chain. The student will receive an overview of career opportunities within the logistics and supply chain management field.

**3 Units**

**54 Lecture hours**

**LOG 105****Purchasing Management**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101

*Transfers to:* CSU

This course is intended for students seeking a career in logistics or supply chain management. This course explores the basic purchasing functions including establishing purchasing requirements and quantities, developing purchasing policies and procedures, receiving acceptable goods, arranging for packaging and shipping, managing inventory control, and the integration of the purchasing activities with other business functions.

**3 Units**

**54 Lecture hours**

**LOG 110****Warehouse Management**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101

*Transfers to:* CSU

This course is intended for students seeking a career in logistics or supply

chain management. This course provides the essential skills for warehouse managers, with emphasis on the planning, protection, productivity, and quality control functions in warehouse and distribution operations. Topics include warehouse design and layout, effective communications, industry terminology, technology, distribution systems, inventory management and protection, accountability, auditing, and safety rules and regulations. This course is intended for students seeking a career in logistics or supply chain management.

**3 Units**  
**54 Lecture hours**

### **LOG 115** **Inventory Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101*

*Transfers to: CSU*

This course is intended for students seeking a career in logistics or supply chain management. The course reviews the concepts and techniques available for planning and controlling inventories. The student will examine methods to determine the appropriate amount of inventory to carry; the relationship between inventory as a physical asset and an accounting asset; the difference between raw material, work-in-process, and finished goods inventories; controlling the physical locations of inventory; recognizing and analyzing inventory dysfunctions; bar code technologies; and protecting inventory from natural, technological, and man-made disasters.

**3 Units**  
**54 Lecture hours**

### **LOG 120** **Transportation Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101*

*Transfers to: CSU*

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of traffic management principles and techniques that facilitate distribution of the world's commerce. Topics covered in the course include analysis of the major forms of transportation, such as motor, rail, air, water, pipeline, inter-modal, and international; the integration of transportation forms into a distribution system; carrier management and selection, including rate structures, scheduling, outsourcing, private fleet operations, and transportation customers; government regulations on tariffs; and transportation of hazardous materials.

**3 Units**  
**54 Lecture hours**

### **LOG 125** **Contract Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101*

*Transfers to: CSU*

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the legal and regulatory requirements applicable to contracts for product transportation and logistics functions and considerations for drafting and negotiating contracts with freight carriers, warehousemen and other logistics service providers.

**2 Units**  
**36 Lecture hours**

### **LOG 130** **Computerized Logistics**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101*

*Transfers to: CSU*

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the need and use of computers in the supply chain and logistics industry and an introduction to the software that is available, such as enterprise resource planning, demand planning, and warehouse management.

**3 Units**  
**54 Lecture hours**

### **LOG 135** **Quality Management Concepts**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment; CIT 042; LOG 101*

*Transfers to: CSU*

This course is intended for students seeking a career in logistics or supply chain management. The course provides a study of the basic principles, objectives, and policies of a quality management program. Topics include the implementation of continuous quality improvement and the understanding of the various quality philosophies, such as Deming's 14 points, process management, ISO 9000 certification, Six Sigma efforts, the Baldrige award criteria, and an introduction to statistical process control.

**3 Units**  
**54 Lecture hours**

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## **MANAGEMENT**

### **Division of Business**

#### **MGMT 050** **Business English**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed for the

student who is seeking a career in business and wants a review of the fundamentals of English. Topics include grammar, sentence structure, paragraph development, punctuation, capitalization, spelling, and vocabulary building as they apply to effective business communication.

**3 Units**  
**54 Lecture hours**

#### **MGMT 052** **Business Mathematics**

This course consists of the fundamental operations of business which are mathematical in application. Topics covered include percent, payroll, mathematics of buying and selling, simple and compound interest, annuities, business and consumer loans, taxes and insurance, depreciation, financial statements, and business statistics. This course provides solid preparation for students going on to further study in accounting, management, marketing, retailing, real estate, or office administration.

**3 Units**  
**54 Lecture hours**

#### **MGMT 070** **Customer Service**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed for students who need to develop their skills as customer service representatives. Students will learn how to identify customer behavior, determine customer needs through active listening, improve their verbal and nonverbal communications, develop telephone customer service skills, learn how to handle difficult customers, and learn how to deal with a diverse business environment. The emphasis of the class will be on learning new techniques and then applying them in work situations. 9-week course, 2 sessions each semester.

**3 Units**  
**54 Lecture hours**

#### **MGMT 072** **Professionalism in Business**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

The purpose of this course is to develop an attitude of professionalism in students and to provide them with the soft skills necessary to succeed in the workplace. The everyday courtesies that put others at ease in the business environment and guidelines for handling the new challenges that have become part of the American workplace are an integral part of this curriculum. Workplace behavior, social etiquette, and professional appearance form the core areas of study. This is a nine-week module.

**1.5 Units**  
**54 Lecture hours**

#### **MGMT 101** **Introduction to Business**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or*

*appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for the student who has an interest in a career in business. Topics cover business operations, strategies for both, domestic and international markets, economic factor, legal regulations, management, leadership, marketing, financial operations, accounting controls, and e-commerce. This course will count toward a business certificate or degree in business and will transfer to a four-year school.

**3 Units**  
**54 Lecture hours**

**MGMT 105**  
**Elements of Supervision**

*Advisory: ENGL 035 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This course is designed for the student who is considering a career in management and is seeking an entry-level career position with a company in retailing, industry, or the government. This course examines the role of the first-line manager and/or supervisor within the organization and emphasizes the application of management functions in effective supervision. Topics include an overview of management principles in direct and straightforward terms, critical concepts and insights into real world practice and challenges.

**3 Units**  
**54 Lecture hours**

**MGMT 108**  
**Business Communications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 050*  
*Transfers to: CSU*

The course covers the principles of effective writing in business. Extensive experience is provided using the different forms of business writing—memorandums, letters, reports, and resumes. Cultural differences and their impact on communicating in business will be studied. This course is designed for students pursuing careers in business.

**3 Units**  
**54 Lecture hours**

**MGMT 120**  
**Human Relations in Business**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This course is designed for the student who is seeking a career in management or is currently in a leadership role and wants a better understanding of human relation skills and techniques. Topics covered in the course include leadership, teamwork, communication, group problem solving, diversity, motivation, and managerial organizations. These topics will apply to both a diverse and competitive environment.

**3 Units**  
**54 Lecture hours**

**MGMT 130**  
**Small Business Management-Entrepreneurship**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This course is designed for those students interested in small business, either in a domestic or international market. Topics include start-up methods and techniques, management and operations, marketing, financing and cash management, location strategies, personnel practices, buying and selling strategies, and e-commerce. This course will also provide students with an opportunity to develop a business plan as it pertains to their small business interest.

**3 Units**  
**54 Lecture hours**

**MGMT 140**  
**Introduction to International Business**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide students with a global perspective of business and acquaint students with the relationship of culture, politics, laws, and economics to operation in today's complex global business environment. The subjects covered will include international trade and finance, confidentiality and privacy, international marketing, and international human resources management. This course is designed for students looking for entry-level positions in the field of international business.

**3 Units**  
**54 Lecture hours**

**MGMT 141**  
**International Marketing**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide students with an in-depth study of international marketing. International market opportunities and the determination of marketing objectives will also be explored. The students will evaluate the marketing research data and analyze selected approaches that affect the marketing mix for specific markets to coordinate strategies in global world markets. This course is designed for the marketing-oriented students and those interested in furthering their knowledge and understanding of international business.

**3 Units**  
**54 Lecture hours**

**MGMT 142**  
**International Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to provide students with a compressive overview of the management practice as it relates to international business. An

emphasis will be placed on the planning, problem solving, organizational structure, human resource management, and production management as it relates to international competition. These functions of management will all be evaluated and examined under international competitive situations and cross cultural boundaries. This course is designed for international business major and those interested in furthering their knowledge of business culture, strategy and behavior issues in the global context.

**3 Units**  
**54 Lecture hours**

**MGMT 143**  
**Import and Export Business**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This introductory course is designed to provide students with an understanding of International Trade, specifically with regard to Import/Export. The course is designed for those who want to enter the field of Trade and International Business or for those who wish to further their knowledge and understanding of International Business and International Trade.

**3 Units**  
**54 Lecture hours**

**MGMT 144**  
**International Banking and Finance**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

The introductory course provides an understanding of international finance, international banking, monetary systems, sources of funds, methods of payments and methods for assessing financial risk. It includes an understanding and appreciation of the relationship between government (international, national, and local) and international banks. The course is designed for students who want to enter the International Finance/Banking field or for those who wish to further their knowledge and understanding of International Banking & Finance.

**3 Units**  
**54 Lecture hours**

**MGMT 146**  
**Human Resources Management**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to study employer-employee relationships with particular emphasis on the challenges facing an expanding multicultural workforce in Southern California. Topics include: legal framework; personnel policies and procedures; implementing equal employment and affirmative action; legal aspects of supervision; training and development; interviewing; testing; wage and salary administration,

job analysis and description; recruitment; transfers; promotions; and principles of collective bargaining.  
**3 Units**  
**54 Lecture hours**

**MGMT 150**  
**Principles of Management**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*  
This course is designed for the student who is seeking a career in management or for the student who needs to expand his/her knowledge of management techniques and organizational methods. In this course, students will learn the theory and application of managerial functions as it applies to planning, organizing, leading, and controlling organizations. Additional topics to be covered will include the history of management, and practical management techniques, practices, and problem solving methodologies. The topics of employee empowerment, characteristics and qualities of successful managers, and contemporary trends in management will also be explored in this course.  
**3 Units**  
**54 Lecture hours**

**MGMT 155**  
**Principles of Leadership**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course is intended for professionals who want to develop an understanding of leadership principles. The course explores the differences between leadership and management, the approaches used to define leadership, and methods used to assess leadership behavior. Various instruments for assessing leadership are examined and discussed. Other topics examined include leadership in teams and leadership of change initiatives.  
**3 Units**  
**54 Lecture hours**

**MGMT 160**  
**Principles of Project Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 101*  
*Transfers to: CSU*  
This course develops the project management skills needed to define, plan, lead, monitor, and complete projects in any type of industry. Specific topics include managing project integration, scope, time, cost, quality, human resources, communications, risks, and procurement. In addition, the five phases of a project are explored; initiating, planning, executing, controlling, and closing. This course is intended for professionals who want to learn or improve the skills of project management.  
**3 Units**  
**54 Lecture hours**

**MGMT 162**  
**Project Cost & Schedule Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 101*  
*Transfers to: CSU*  
This course is intended for students seeking a career in project management. Time, cost, and budget estimates are the basis for project control. This course explores the tools and techniques used to estimate project tasks, costs, and resources, and monitor performance against those estimates over the life of the project.  
**2 Units**  
**36 Lecture hours**

**MGMT 164**  
**Project Risk Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 101*  
*Transfers to: CSU*  
This course is intended for students seeking a career in project management. Managing project risk depends upon developing an understanding of the sources of problems in projects, and then working to minimize threats and maximize opportunities wherever feasible. This course explores the tools and techniques used to plan risk management, identify risks, perform qualitative and quantitative risk analysis, plan risk responses, and monitor and control risk responses.  
**2 Units**  
**36 Lecture hours**

**MGMT 166**  
**Project Management Practicum**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; CIT 101*  
*Transfers to: CSU*  
This course is intended for students seeking a career in project management. This is a hands-on capstone course providing students with practice in the five project management process groups and the nine knowledge areas. Students will simulate a project based on case studies. The case studies will require the completion of project planning documents under typical business constraints. The case studies will be completed in a team environment.  
**2 Units**  
**36 Lecture hours**

**MGMT 290**  
**Cooperative Work Experience/  
Internship for Business Management  
Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*  
This course supports and reinforces on-the-job training in business and industrial establishments under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet

performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of Business Management and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".  
**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours*  
**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours*  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**MGMT 299**  
**Directed Study: Management**

*Transfers to: UC, CSU*  
Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.  
**1 to 4 Units**  
**54 to 216 Lab hours**

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## MARKETING

Division of Business

**MRKT 170**  
**Elements of Marketing**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*  
This course is designed for the student who is interested in a career in marketing or gaining an entry-level marketing position with a retail, industrial, service, or consumer product company. Discussion

of marketing concepts, strategies, and techniques will take place in an environment that reflects new technologies and international competitiveness. The topics in the course will include marketing concepts, functions, operations, and organizations of retail and wholesale enterprises; distribution channels; market research; advertising; marketing costs; pricing; cooperative marketing, marketing legislation and regulations and trends.

**3 Units**  
**54 Lecture hours**

**MRKT 171**  
**Consumer Behavior**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This class investigates and analyzes the reasons why consumers select, purchase, use, and dispose of goods and services to satisfy their personal and household needs. Topics to be explored include consumer culture, group influence, consumption patterns, and consumer attitudes and lifestyles as well as other relevant topics. This class is appropriate for the marketing major and anyone who wants to know why people buy.

**3 Units**  
**54 Lecture hours**

**MRKT 172**  
**Advertising and Promotion**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This course is designed to introduce students to the creative and competitive field of advertising and promotion. Course content includes understanding the target audience, developing marketing and advertising plans, engaging in the creative process through strategy and execution, and integrating marketing communications elements as they relate to personal selling, sales promotion, direct marketing, and electronic, digital, and print media. This course is appropriate for the marketing major or anyone interested in advertising and promotion.

**3 Units**  
**54 Lecture hours**

**MRKT 173**  
**Principles of Selling**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for the student interested in a sales position or those currently in the sales field needing further training or hoping to transition to a management or marketing manager position. The course will focus on relationship selling and developing productive selling environments. In addition, prospecting techniques, approach strategies, presentation and demonstration skills, overcoming selling objections, and closing techniques will provide

the core of the material covered in this course.

**3 Units**  
**54 Lecture hours**

**MRKT 174**  
**Small Business Marketing and Advertising**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This class provides useful and effective marketing and advertising tools and techniques to those students who have or would like to own a small business. A special emphasis is placed on the fundamentals of marketing and guerilla marketing and advertising techniques. Topics for discussion will include marketing plan strategies, marketing research, marketing channel management, retail and pricing strategies, and cost-effective guerilla advertising techniques for small businesses.

**3 Units**  
**54 Lecture hours**

**MRKT 175**  
**Retail Management**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MGMT 101*  
*Transfers to: CSU*

This course is designed for the student pursuing a career in retail management or desiring to own their own retail business. Class discussions will explore the topics of customer buying behavior, retail market strategy, retail site location, and human resources management. Case studies and experiential exercises will be used to help students understand additional topics including customer service, store management, retail pricing, supply chain management, and merchandise management.

**3 Units**  
**54 Lecture hours**

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## MASS

### COMMUNICATIONS

Division of Communications  
& Languages

**MSCM 103**  
**Survey of Motion Picture, Radio and Television**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit \*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: MSCM 103 or MSCM 128)*

This course presents a broad survey of the history, theory, aesthetic principles, and production techniques used in the making of motion pictures, radio, and television programs. Students will view or listen to numerous television shows, motion pictures, films, and radio programs in order to become familiar with various production techniques and methods of critically evaluating media presen-

tations. Guest lecturers and field trips to film, TV shows, and radio studios may be scheduled.

**3 Units**  
**54 Lecture hours**

**MSCM 128**  
**Mass Media in Modern Society**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: MSCM 103 or MSCM 128)*

This course in mass media surveys the history, format, laws, and significant contributors in American mass communications. Through projects and readings, students research and discuss such issues as free press, fair trial, foreign communications systems, and the relationship between free media and a democratic society.

**3 Units**  
**54 Lecture hours**

**MSCM 134**  
**Documentary Film**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This is an inquiry into the origin, purpose, development, and current trends of the documentary (non-fiction) film. The class will view and critique the great documentaries ranging from Nanook of the North to Woodstock. The future of the medium in business, government, education, and television will also be discussed.

**3 Units**  
**54 Lecture hours**

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## MATHEMATICS

Division of Mathematics & Sciences

**MATH 009**

**Enrichment Activities for Mathematics**

This course is designed to support the objectives of the corequisite mathematics course. Activities are designed to further student understanding and appreciation of mathematical principles. Applications and explorations of concepts covered in the corequisite course are emphasized. These instructional activities are not available for discussion/lecture format and are not required for the grade in the corequisite course.

**0 Units**  
**0 Lab hours**

**MATH 020**

**Basic Mathematics**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.*

This course is designed for students who need a review of the basic principles and skills of arithmetic. The general areas of review are: operations with whole numbers and fractions; operations with decimals and proportional thinking; percent problems

and applications to percents. Students may enroll in MATH 020 in a lecture section for three units of credit or in individual one-unit modules: MATH 020A, 020B, and 020C in the Math and Science Center (MSC). This is a non-degree credit course.

**3 Units**  
**54 Lecture hours**

**MATH 020A**  
**Basic Mathematics A**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.*

This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.

**1 Unit**  
**54 Lab hours**

**MATH 020B**  
**Basic Mathematics B**

*Prerequisite: MATH 020A with a "C" or better*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.*

This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.

**1 Unit**  
**54 Lab hours**

**MATH 020C**  
**Basic Mathematics C**

*Prerequisite: MATH 020B with a "C" or better*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment; Individual modules to be taken in sequence.*

This course is designed for students who need a review of the basic principles and skills of arithmetic. See MATH 020 for more information.

**1 Unit**  
**54 Lab hours**

**MATH 021**  
**Basic Mathematics and Study Skills**

*Advisory: ENGL 030 or ENLA 024 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed for the student who needs an introduction to the study skills required to succeed in a college mathematics course, as well as a comprehensive review of the basic principles and skills of mathematics. The general areas of mathematics review are operations with whole numbers and fractions, operations with decimals, percent problems and applications to percent, and proportional thinking. Special attention is given to the following study skills: reading a math book, completing homework assignments, taking notes, studying for exams, approaching word problems, and getting help. Other topics include learning styles and attitudes and behaviors that are beneficial to success in mathematics. This is a non-degree credit course.

**4 Units**  
**72 Lecture hours**

**MATH 028**  
**What's Math got to do with it?**

*Corequisite: Concurrent enrollment in Math 020 or 030*

*Advisory: ENGL 030 or ENLA 024 or appropriate assessment; READ 021 or appropriate assessment*

This course is designed for the student who struggles with mathematics. It explores why it is important to study mathematics and to develop a number sense. The student will gain an understanding of attitudes and behaviors that are beneficial to success in mathematics and will learn to avoid those that are counterproductive. Each student will be provided with a multitude of study skills that are appropriate for individual learning styles. The student will learn how to stay motivated; read the math book; complete homework assignments; take notes; study for exams; approach word problems and get help. The students will be introduced to the tutoring software packages that are bundled with most text books and provide free help. Concurrent enrollment in Math 020 or Math 030 is required. This will provide the student with immediate application of the skills learned and support throughout the semester.

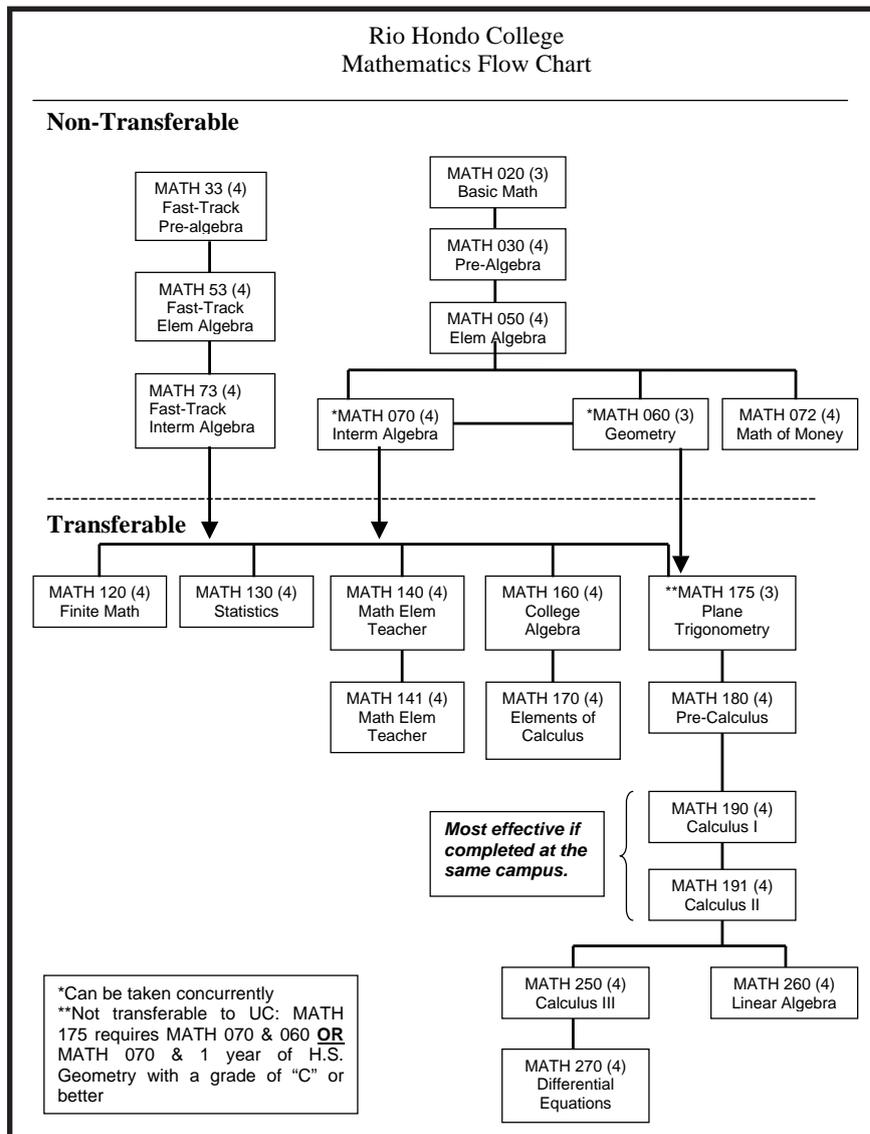
**1 Unit**  
**18 Lecture hours**  
**18 Lab hours**

**MATH 030**  
**Prealgebra**

*Prerequisite: MATH 020 or MATH 021 or MATH 020C with a "C" or better or appropriate assessment*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. The course strengthens the student's arithmetic and informal geometry skills, pro-



vides an introduction to the abstractions of algebra using fundamental principles of rational numbers, order of operations, and solving linear equations. Students may enroll in MATH 030 in a lecture section for four units of credit, or individual one-unit modules 030A, 030B, 030C, and 030D in the Math and Science Center (MSC).

**4 Units**  
**72 Lecture hours**

**MATH 030A**  
**Prealgebra A**

*Prerequisite: MATH 020 or MATH 021 or MATH 020C with a "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

**1 Unit**  
**18 Lecture hours OR**  
**54 Lab hours**

**MATH 030B**  
**Prealgebra B**

*Prerequisite: MATH 030A with a "C" or better*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

**1 Unit**  
**18 Lecture hours OR**  
**54 Lab hours**

**MATH 030C**  
**Prealgebra C**

*Prerequisite: MATH 030B with a "C" or better*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

**1 Unit**  
**18 Lecture hours OR**  
**54 Lab hours**

**MATH 030D**  
**Prealgebra D**

*Prerequisite: MATH 030C with a "C" or better*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed primarily for students who know the fundamentals of arithmetic, and have had little or no background in algebra. See MATH 030 for more information.

**1 Unit**  
**18 Lecture hours OR**  
**54 Lab hours**

**MATH 033**  
**Fast-Track Prealgebra**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This is the first of three math courses designed to allow students to complete developmental math courses at a faster rate of speed than the traditional lecture course. This course combines topics from both Basic Math and Prealgebra, including operations with whole numbers, integers, fractions, decimals and proportional thinking, percent problems and applications to percents, as well as an introduction to algebraic thinking using fundamental principles of expressions and solving linear equations.

**4 Units**  
**72 Lecture hours**

**MATH 049**  
**Introduction to MESA**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This standalone one-unit course is designed for students who participate in the MESA (Mathematics, Engineering, Science Achievement) program at Rio Hondo College. The course will introduce students to Science-Technology-Engineering-Mathematics (STEM) career paths, transfer requirements, internships and scholarships availabilities. The course introduces StrengthsQuest and will assist the student in compiling strengths-based resumes and personal statements. Students are expected to be concurrently enrolled in at least one mathematics or science course.

**1 Unit**  
**18 Lecture hours**

**MATH 050**  
**Elementary Algebra**

*Prerequisite: MATH 030 or MATH 030D or MATH 033 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. Topics include: numbers and their properties, operations with real numbers, exponents, solutions and graphs of linear equations, slopes of lines, system of linear equations and applications, operations with polynomials including factoring, solving quadratic equations, operations with simple rational and radical expressions. Students may enroll in MATH 050 in a lecture section for four units of credit, or individual one-unit modules 050A, 050B, 050, and 050D in the Math and Science Center (MSC) or online.

**4 Units**  
**90 Lecture hours**

**MATH 050A**  
**Elementary Algebra A**

*Prerequisite: MATH 030 or MATH 030D or MATH 033 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

**1 Unit**  
**0 to 22.5 Lecture hours**  
**0 to 54 Lab hours**

**MATH 050B**  
**Elementary Algebra B**

*Prerequisite: MATH 050A with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

**1 Unit**  
**0 to 22.5 Lecture hours**  
**0 to 54 Lab hours**

**MATH 050C**  
**Elementary Algebra C**

*Prerequisite: MATH 050B with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

**1 Unit**  
**0 to 22.5 Lecture hours**  
**0 to 54 Lab hours**

**MATH 050D**  
**Elementary Algebra D**

*Prerequisite: MATH 050C with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the basic principles and skills of algebra. It is designed primarily for those students who have no prior training in algebra or need a review of the fundamentals of algebra. See MATH 050 for more information.

**1 Unit**  
**0 to 22.5 Lecture hours**  
**0 to 54 Lab hours**

**MATH 053****Fast-Track Elementary Algebra**

*Prerequisite: MATH 030 or MATH 030D or MATH 033 with a grade of "C" or better or appropriate skill level as determined by participation in the math placement process*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This is the second of three math courses designed to allow students to complete developmental math courses at a faster rate of speed than the traditional lecture course. It is designed primarily for those students who need to learn the fundamentals of algebra. This course consists of topics including solutions and graphs of linear equations and inequalities, slopes of lines, systems of linear equations and applications, operations with polynomials including factoring and solving quadratic equations.

**4 Units**

**72 Lecture hours**

**MATH 060****Geometry**

*Prerequisite: MATH 050 or MATH 050D or MATH 053 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 030 or ENLA 024 or appropriate assessment; READ 023 or appropriate assessment*

This course is an introduction to the elements of geometry, including points, lines, planes, and angles. These elements are used in conjunction with triangles, polygonal and circular figures in both two and three dimensional configurations. Formulas for computing lengths, areas, and volumes are presented through the use of applications. This course is intended for students who have not had or completed two semesters of high school geometry or who need a refresher prior to taking trigonometry, technology courses, mathematics for elementary teachers or other courses with a geometry prerequisite.

**3 Units**

**54 Lecture hours**

**MATH 070****Intermediate Algebra**

*Prerequisite: MATH 050 or MATH 050D or MATH 053 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU if taken prior to the Fall Semester, 1988*

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. This course is a study of linear and quadratic equations and inequalities, system of linear equations, polynomials, exponents and radicals, relations and functions, graphs of functions, exponential and

logarithmic expressions and their applications. Students may enroll in MATH 070 in a lecture section for four units of credit or in individual one-unit modules: MATH 070A, 070B, 070C, and 070D in the Math and Science Center (MSC) or online.

**4 Units**

**90 Lecture hours**

**MATH 070A****Intermediate Algebra A**

*Prerequisite: MATH 050, MATH 050D, or MATH 053 with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU if taken prior to the Fall Semester, 1988*

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

**1 Unit**

**0 to 22.5 Lecture hours**

**0 to 54 Lab hours**

**MATH 070B****Intermediate Algebra B**

*Prerequisite: MATH 070A with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU if taken prior to the Fall Semester, 1988*

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

**1 Unit**

**0 to 22.5 Lecture hours**

**0 to 54 Lab hours**

**MATH 070C****Intermediate Algebra C**

*Prerequisite: MATH 070B with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU if taken prior to the Fall Semester, 1988*

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

**1 Unit**

**0 to 22.5 Lecture hours**

**0 to 54 Lab hours**

**MATH 070D****Intermediate Algebra D**

*Prerequisite: MATH 070C with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU if taken prior to the Fall Semester, 1988*

This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. See MATH 070 for more information.

**1 Unit**

**0 to 22.5 Lecture hours**

**0 to 54 Lab hours**

**MATH 072****The Mathematics of Money**

*Prerequisite: MATH 050 or MATH 050D with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

The Mathematics of Money is designed for students pursuing an associate's degree who do not plan to transfer to a four-year school. Students will consider the mathematics of exponential growth and decay and the use of logarithms as they relate to investing and borrowing money including compound interest, credit cards, and installment loans. Other topics include probability and statistics, especially related to gambling and insurance.

**4 Units**

**72 Lecture hours**

**MATH 073****Fast-Track Intermediate Algebra**

*Prerequisite: MATH 050 or MATH 050D or MATH 053 with a grade of "C" or better or appropriate skill level as determined by participation in the math placement process*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

This is the third of three math courses designed to allow students to complete developmental math courses at a faster rate of speed than the traditional lecture course. This course is designed for students who have completed an elementary algebra course and need to complete an additional course in algebra before proceeding to a college level transferable course. This course is a study of systems of linear equations in more than two variables, radical and rational expressions and equations, complex absolute value equations and inequalities, relations and functions, synthetic division, graphs of functions, exponential and logarithmic expressions and their applications, as well as complex numbers.

**4 Units**

**72 Lecture hours**

**MATH 103****Math Tutoring Skills**

*Prerequisite:* MATH 070 or appropriate assessment

*Prerequisite/Corequisite:* ED 090

*Transfers to:* CSU

This course is designed for students who seek to peer-tutor and students who aim to tutor at elementary, middle, high school or college. The course will provide the student with the skills to appropriately help, explain, and assist others solve math problems without assistance.

**0.5 Unit**

**9 Lecture hours**

**MATH 104****Math Tutoring Discussion**

*Prerequisite/Corequisite:* MATH 103

*Transfers to:* CSU

This course is designed for students who currently peer-tutor and students who tutor at elementary, middle, high schools or college. The discussion will assist the students with solving problems that occur in tutoring situations and expand their mathematical problem solving skills.

**0.5 Unit**

**9 hours**

**MATH 120****Finite Mathematics**

*Prerequisite:* MATH 070 or MATH 070D with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for students majoring in business and social sciences. Topics will include: modeling with linear equations, matrix theory, linear programming, set theory, counting, probability, and statistics.

**4 Units**

**72 Lecture hours**

**MATH 130****Statistics**

*Prerequisite:* MATH 070, MATH 070D, or MATH 073 with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 101 or appropriate assessment; READ 101 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 130 or MATH 130H)

This course is designed for students majoring in business, social sciences, and life sciences. This course provides an overview of descriptive and inferential statistics. The students learn to read, interpret and present data in a well-organized way. This includes frequency distributions, graphs, measures of central tendency and variability, correlation and linear regression. While discussing inferential statistics, the students learn to make generalizations about populations. This includes probability, sampling techniques, confidence intervals, and hypothesis tests.

**4 Units**

**72 Lecture hours**

**MATH 130H****Statistics**

*Prerequisite:* MATH 070, MATH 070D, or MATH 073 with a grade of "C" or better or appropriate assessment; Minimum GPA of 3.0; Completion of ENGL 101 with a grade of "C" or better

*Advisory:* READ 101 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 130 or MATH 130H)

This course is designed for students majoring in business, social sciences, and life sciences. This course provides an overview of descriptive and inferential statistics. The students learn to read, interpret and present data in a well-organized way. This includes frequency distributions, graphs, measures of central tendency and variability, correlation and linear regression. While discussing inferential statistics, the students learn to make generalizations about populations. This includes probability, sampling techniques, confidence intervals, and hypothesis tests. This course is intended for students who meet Honors Program requirements.

**4 Units**

**72 Lecture hours**

**MATH 140****Mathematics for Elementary Teachers**

*Prerequisite:* MATH 070 or MATH 070D or MATH 073 with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed to deepen and extend the student's understanding of the foundations of the mathematics taught in elementary school. Because it is intended for the student preparing to teach at that level, it frequently refers to and uses materials and methodology appropriate for students at that level, but it is not a methods course. The course is concept-driven with an emphasis on problem solving. Concrete manipulatives are used to give meaning to abstract mathematical concepts. Topics include numeration and place value concepts, models and algorithms for operations with whole numbers, integers, fractions and decimals, and the structure and properties of the real number system.

**4 Units**

**72 Lecture hours**

**MATH 141****Mathematics for Elementary Teachers**

*Prerequisite:* MATH 060 and MATH 140 with a grade of "C" or better

*Transfers to:* CSU

Math 141 is a continuation of Math 140. Topics include probability, statistics, informal geometry in two and three dimensions, coordinate geometry, measurement, similarity, tessellations, constructions, and an introduction to Euclidean geometry.

Manipulatives and appropriate technology are used as tools for exploration and problem solving. This course is intended for elementary education majors planning to teach in elementary or middle schools.

**4 Units**

**72 Lecture hours**

**MATH 160****College Algebra**

*Prerequisite:* MATH 070 or MATH 070D or MATH 073 with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU

(\*Students will receive credit from UC for only one of the following courses: MATH 160 or MATH 165 or MATH 180)

This course will cover linear, quadratic, polynomial, power, exponential, and logarithmic functions and their applications from a graphical, numerical, and analytical point of view. The course also will cover systems of equations and inequalities and sequences and series. The course serves as preparation for students planning to take Elements of Calculus (MATH 170). Graphing technology will be required.

**4 Units**

**72 Lecture hours**

**MATH 170****Elements of Calculus**

*Prerequisite:* MATH 160 with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 101; READ 101

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 170, MATH 190, or MATH 190H)

This is a one-semester course in the fundamentals of algebra-based calculus and its applications to the fields of business, economics, social sciences, biology and technology. Course topics include graphing of functions, derivatives and integrals of polynomials, exponential and logarithmic functions, applications of derivatives and integrals, multi-variable derivatives and differential equations.

**4 Units**

**72 Lecture hours**

**MATH 175****Plane Trigonometry**

*Prerequisite:* MATH 060 and MATH 070 or MATH 070D or MATH 073 with a grade of "C" or better or appropriate assessment

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course is designed for students who are majoring in math, science, and engineering. This course equips students with the skills necessary for success in pre-calculus. It presents the concepts of plane trigonometry using a functions approach. Included is a study of basic relations, functions, and transformations, as well as circular functions, trigonometric functions

of angles, identities, inverse functions and their equations and solutions of triangles.

**3 Units**  
**72 Lecture hours**

**MATH 180**  
**Pre-Calculus**

*Prerequisite: MATH 175 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment.*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 160 or MATH 165 or MATH 180)*

This course is designed to prepare students for the study of calculus. It presents a comprehensive study of linear, quadratic, polynomial, exponential, logarithmic, rational, and trigonometric functions. Inequalities, introductory analytical geometry, polar coordinates, polar equations and their graphs, DeMoivre's Theorem and an introduction to sequences are also included. This course is a prerequisite for MATH 190.

**4 Units**  
**72 Lecture hours**

**MATH 190**  
**Calculus I**

*Prerequisite: MATH 180 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 170, MATH 190 or MATH 190H)*

MATH 190 is a semester course designed primarily for those students planning to pursue programs in engineering, mathematics, computer science, and physical sciences. This course includes topics of differential and integral calculus of a single variable.

**4 Units**  
**90 Lecture hours**

**MATH 190H**  
**Calculus I**

*Prerequisite: MATH 180 with a grade of "C" or better or appropriate assessment; ENGL 101 with a grade of "C" or better or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: MATH 170, MATH 190 or MATH 190H)*

MATH190H is a semester course designed primarily for those students planning to pursue programs in engineering, mathematics, computer science, and physical sciences. This course includes topics of differential and integral calculus of a single variable. This course is intended for students who meet Honors Program requirements.

**4 Units**  
**90 Lecture hours**

**MATH 191**  
**Calculus II**

*Prerequisite: MATH 190 or MATH 190H with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment*

*Transfers to: UC, CSU*

MATH 191 is a semester course which continues the study of calculus begun in MATH 190. The course includes techniques of integration, improper integrals, anti-derivatives, application of the definite integral, differential equations, Taylor polynomials, series, vectors, the dot product and the cross product. This course is the second course of the calculus sequence required of engineering, physics, and mathematics majors.

**4 Units**  
**90 Lecture hours**

**MATH 250**  
**Calculus III**

*Prerequisite: MATH 191 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 101 or appropriate assessment*

*Transfers to: UC, CSU*

This course involves a study of functions of two or more variables using the principles of calculus, vector analysis, and parametric equations. Included is a study of solid regions using partial differentiation, vector analysis, and multiple integration. This course also includes a study of vector calculus topics, such as line and surface integrals, Green's Theorem, Stokes' Theorem, and the Divergence Theorem. This is the third course of the calculus sequence required of engineering, physics, and mathematics majors.

**4 Units**  
**90 Lecture hours**

**MATH 260**  
**Linear Algebra**

*Prerequisite: MATH 191 with a grade of "C" or better*

*Transfers to: UC, CSU*

This course is an introductory study of linear algebra with applications to problems in the physical and social sciences. It includes a study of vectors, systems of linear equations, matrices, determinants, the Fundamental Theorem of Invertible Matrices, Eigenvalues and Eigenvectors, orthogonality, vector spaces and proof by mathematical induction. This course is required for Engineering, Physics, Computer Science and Mathematics majors.

**4 Units**  
**72 Lecture hours**

**MATH 270**  
**Differential Equations**

*Prerequisite: MATH 250 with a grade of "C" or better*

*Transfers to: UC, CSU*

This course is a study of ordinary differential equations with applications in the physical and social sciences. The course includes a study of linear and nonlinear first-order differential

equations, linear higher order differential equations, systems of differential equations, power series solution of differential equations, and Laplace transforms. This course is a continuation of MATH 190, MATH 191, and MATH 250 and is required for all Engineering, Physics, and Mathematics majors.

**4 Units**  
**72 Lecture hours**

**MATH 299**  
**Directed Study: Mathematics**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## MUSIC

### Division of Arts & Cultural Programs

**MUS 101**  
**Fundamentals of Music for Non-Music Majors**

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is a course designed for the student interested in the fundamentals of music theory. Included in this class will be a study of basic notation, rhythm reading, major and minor scale construction, simple musical analysis and basic chord construction.

**3 Units**  
**54 Lecture hours**

**MUS 103****Music Theory I**

*Prerequisite: MUS 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wants to study the basic materials of harmony and musicianship: scales, keys, intervals, chords, chord connections, part writing, and inversions. Also included is ear training, melodic and harmonic dictation, and harmonic analysis. Required of all music majors.

**3 Units**

**54 Lecture hours**

**MUS 104****Music Theory II**

*Prerequisite: MUS 103 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wants to study the harmonic practices of the eighteenth and nineteenth centuries. Advanced stages of chromaticism which includes tonicization, modulation, modal mixture, and sequential movement both tonal and real will be incorporated into the harmonic study. Techniques and orchestration of instruments are studied and applied to melodic and motivic construction in a formal compositional context.

**3 Units**

**54 Lecture hours**

**MUS 106****Beginning Musicianship I**

*Prerequisite: MUS 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wants to develop beginning aural skills, sight-reading, sight-singing and rhythmic interpretation skills. It is recommended for all instrumentalists, singers and composers.

**3 Units**

**54 Lecture hours**

**MUS 107****Beginning Musicianship II**

*Prerequisite: MUS 106*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This beginning level course is designed for the student who wants to continue developing aural skills, sight-reading, sight-singing and rhythmic interpretation skills. It is recommended for all instrumentalists, singers and composers.

**3 Units**

**54 Lecture hours**

**MUS 110****College Community Orchestra**

*Advisory: MUS 101*

*Transfers to: UC, CSU*

This course is designed for the instrumental music student who wants to become familiar with the vast body of orchestral music. It provides players an opportunity to develop their own musical capabilities as well as participating in ensemble playing. Students are expected to provide their own instruments.

**1 Unit**

**54 Lab hours**

**MUS 116****Music Ensemble for Diverse Instruments I**

*Transfers to: UC, CSU*

This course is designed for the electric and acoustic instrumental student, the vocal student, and the novice to perform together in one ensemble. The ensemble content, which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

**2.5 Units**

**27 Lecture hours**

**54 Lab hours**

**MUS 117****Music Ensemble for Diverse Instruments II**

*Prerequisite: MUS 116*

*Transfers to: UC, CSU*

This course is designed for the intermediate electric, acoustic instrumental and vocal students to perform together in one ensemble. The ensemble content, which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

**2.5 Units**

**27 Lecture hours**

**54 Lab hours**

**MUS 118****Mexican Folk Ensemble**

*Advisory: MUS 101*

*Transfers to: CSU*

This course is designed for the student who is interested in singing or playing regional music styles of Mexico, with a special emphasis on Mariachi music. Folk ensemble playing and folk singing are coordinated and indigenous instruments are employed such as the guitarron, vihuela, guitar and jarana jarocho as well as the violin, flute and trumpet. Students are expected to provide their own instruments.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

**MUS 119****Advanced College Community Orchestra**

*Prerequisite: MUS 110*

*Transfers to: CSU*

This course is designed for the more advanced instrumental music student who wants to become more familiar with the vast body of orchestral music. It provides advanced players an opportunity to further develop their own musical capabilities as well as participate in ensemble playing. Students are expected to provide their own instruments.

**1 Unit**

**54 Lab hours**

**MUS 120****Vocal Arts Ensemble I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who seeks an opportunity to perform in a vocal ensemble. Participation in public performance is required. The repertoire will include a diversity of selections including classical choral literature, world music, popular and contemporary music. Previous choral experience is not required.

**2 Units**

**27 Lecture hours**

**27 Lab hours**

**MUS 129****Music in Latin American Culture**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is a survey course designed for the student seeking an introduction to music in Latin American culture. The course will focus on the diverse musical cultures of South America, Central America, Mexico and the Caribbean. Emphasis will be placed on rhythmic styles and structures, as well as, specific social, cultural, and historical backgrounds.

**3 Units**

**54 Lecture hours**

**MUS 130****Music History and Literature Before 1750**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who seeks an introduction to the major composers and musical movements from antiquity to the 1700's. The course focuses on learning, reasoning, and writing about these periods with the goal of understanding their social, political, and cultural contexts. In addition, these periods will be compared to contemporary culture and its social, political, and cultural framework.

**3 Units**

**54 Lecture hours**

*appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for the student who seeks an introduction to the major composers and musical movements from 1750 to the present. The course focuses on learning, reasoning, and writing about these periods with the goal of understanding their social, political, and cultural contexts. In addition, these periods will be compared to contemporary culture and its social, political, and cultural framework.

**3 Units**  
**54 Lecture hours**

**MUS 132**  
**History of Rock and Roll**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey course designed for the student who seeks an introduction to Rock and Roll. The course will focus on rock and roll music, its origins and its many sub-styles. The social, political and economic influence the music has had on society and other types of music will also be examined.

**3 Units**  
**54 Lecture hours**

**MUS 133**  
**Music Appreciation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of musical practices from various periods of music history with an emphasis on social, political and commercial contexts. Types of music to be covered will include Classical, Jazz, Rock, Blues and World Music. This course is targeted for students seeking to fulfill the general education requirement in the arts.

**3 Units**  
**54 Lecture hours**

**MUS 134**  
**Rio Hondo College Singers**

*Prerequisite: MUS 120 and audition*  
*Advisory: ENGL 035 or ENLA 100 and appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This advanced level course is designed for students who seek to broaden their understanding of choral literature by performing difficult choral works. Attention is given to the refinement and polishing of technique through rehearsal and performance of choral music from various musical periods and styles. Enrollment criteria include an audition.

**2 Units**

**18 Lecture hours**  
**54 Lab hours**

**MUS 135**  
**Music in Film**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey of the art and craft of film music as practiced by prominent film composers and sound designers. Emphasis will be placed on history and function from 1930 to the present, as well as cultural context. The class is designed for students interested in learning how music influences film.

**3 Units**  
**54 Lecture hours**

**MUS 136**  
**History of Jazz**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is a survey course designed for the student who seeks an introduction to Jazz. The course will focus on jazz music, its origins and its many sub-styles. The social, political and economic influence the music has had on society and other types of music will also be examined.

**3 Units**  
**54 Lecture hours**

**MUS 138**  
**Masterworks Chorale**

*Prerequisite: Audition*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment*  
*Transfers to: UC, CSU*

This advanced level course is designed for students who seek to broaden their understanding of choral literature by performing difficult choral works such as the B minor Mass by Bach, Elijah by Mendelssohn, or Messiah by Handel accompanied by orchestra or other instrumental ensemble. Attention is given to the refinement and polishing of technique through rehearsal and performance of choral music from various musical periods and styles. Public Performance is required. Enrollment criteria requires an audition.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 139**  
**Advanced Vocal Ensemble**

*Prerequisite: MUS 120 with a grade of "C" or better*  
*Transfers to: CSU*

This course is designed for the more advanced vocal student who seeks an opportunity to perform in a vocal ensemble. The repertoire will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 140**  
**Beginning Voice**

*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students who wish to learn the vocal techniques used in signing Opera, Pop, Folk, Rock and Jazz. Emphasis is placed upon selection of material dependent upon the abilities of the student. No previous musical experience is necessary.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 142**  
**Intermediate Voice**

*Prerequisite: MUS 140 with a "C" or better*  
*Advisory: READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students who wish to further develop the techniques acquired in Beginning Voice. A comprehensive study of style and artistic interpretation will be included.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 145**  
**Beginning Piano I**

*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This class is for the student interested in beginning piano skills, and in the understanding of music through the study of simple piano pieces. The development of skills at the beginning level may be used in the playing of various styles including Classical, Pop, Jazz and Rock. Individual pieces are performed in class. No previous experience is necessary.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 146**  
**Beginning Piano II**

*Prerequisite: MUS 145 with a "C" or better*  
*Transfers to: UC, CSU*

This class is for the student interested in beginning piano skills, and in the understanding of music through the study of simple piano pieces. The development of skills at the beginning level may be used in the playing of various styles including Classical, Pop, Jazz and Rock. Individual pieces are performed in class. This course is a continuation of materials learned in Beginning Piano I.

**1 Unit**  
**18 Lecture hours**

a continuation of materials learned in Beginning Piano I.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 147**  
**Intermediate Piano III**

*Prerequisite: MUS 146 with a "C" or better*

*Transfers to: UC, CSU*

This course is designed for students seeking to broaden their knowledge and understanding of piano literature. Varied works of intermediate difficulty will be introduced. Attention is given to the refinement and polishing of technique through scales, arpeggios, sight-reading, interpretation and tone production.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 148**  
**Intermediate Piano IV**

*Prerequisite: MUS 147 with a "C" or better*

*Transfers to: UC, CSU*

This course is designed for students seeking to broaden their knowledge and understanding of piano literature. More advanced solo literature of intermediate difficulty will be introduced. Emphasis is placed on the technical and interpretive demands required to perform a varied repertoire.

**1 Unit**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 150**  
**Beginning Guitar**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student interested in beginning guitar skills and in the understanding of music through the study of simple guitar pieces. The development of skills at the beginning level may be used in the playing of various styles including Classical, Pop, Jazz, Rock and Blues. No previous musical experience is necessary.

**1.5 Units**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 151**  
**Intermediate Guitar**

*Prerequisite: MUS 150*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This intermediate level course is designed for students who seek to broaden their understanding of guitar literature by performing moderately difficult works. Attention is given to the refinement and polishing of

technique through scales, arpeggios, sight-reading, interpretation and tone production.

**1.5 Units**  
**18 Lecture hours**  
**27 Lab hours**

**MUS 154**  
**Guitar Ensemble**

*Prerequisite: Must have completed at least one semester of guitar*

*Transfers to: UC, CSU*

This course will offer the opportunity for guitarists, electric or acoustic, to perform together in an ensemble. The ensemble content will depend upon the makeup of the class and will include a diversity of approaches that might include Latin, Asian, Popular and Classical Music. Recommended for guitarist whether they be music majors or not.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 155**  
**Music for Dance**

*Advisory: ENGL 030 or ENLA 024 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed to provide the student with knowledge of the fundamentals of music and the relationship between music and dance. An emphasis will be placed on rhythmic, melodic, and harmonic skills most pertinent to the composer, choreographer, and those interested in teaching music, dance or movement. The connection between music and dance will be placed in a historical perspective, allowing students to gain an understanding of the styles, genres, and trends of dance music.

**3 Units**  
**54 Lecture hours**

**MUS 156**  
**Intermediate Musicianship I**

*Prerequisite: MUS 107*

*Transfers to: CSU*

This course is designed for the student who wants to further develop aural skills, sight-reading, sight-singing and rhythmic interpretation skills beyond the beginning level. It is recommended for all instrumentalists, singers and composers.

**3 Units**  
**54 Lecture hours**

**MUS 157**  
**Intermediate Musicianship II**

*Prerequisite: MUS 156*

*Transfers to: CSU*

This course is designed for the student who wants to further develop aural skills, sight-reading, sight-singing and rhythmic interpretation skills beyond the introductory intermediate level. It is recommended for all instrumentalists, singers and composers.

**3 Units**  
**54 Lecture hours**

**MUS 158**  
**Masterworks Chorale II**

*Prerequisite: MUS 138 and Audition*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This advanced level course is designed for students who seek in-depth study of choral literature by performing complex choral works such as Beethoven's Mass in C, Orff's Carmina Burana, and Britten's War Requiem accompanied by orchestra or other instrumental ensemble, or sung a cappella. Attention is given to every detail of musical development through rehearsal and performance of choral music from various musical periods and styles. Public performance is required. Enrollment criteria requires successful completion of MUS 138 and an audition.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 165**  
**Electronic Music I**

*Corequisite: MUS 180*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for the student who wants to learn the basic elements involved in electronic music including: fundamental elements of music, keyboard electronics, signal processing, virtual synthesis which may include Sylenth, Crystal, and Gladiator, MIDI, simple computer software which may include Garage Band, and digital recording. Creating electronic compositions will also be covered. Students should take Music 180 concurrently. This course is recommended for all students who intend to pursue music professionally.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**MUS 167**  
**Electronic Music II**

*Prerequisite: MUS 165 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for the student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Various types of synthesis including software analog synthesis and virtual analogue synthesis will be studied. Software that will be used in the course may include Reason and Logic Pro. Sequencing, recording via studio software, notating compositions and creating music for dance and theatre

on the computer will be the primary focus of the course.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**MUS 168**  
**Electronic Music III**

*Prerequisite: MUS 167*  
*Transfers to: CSU*

This course is designed for the advanced electronic music student who wants to continue the study of concepts and techniques needed to compose electronic music and is recommended for students who intend to pursue music professionally. Assignments in the course will include scoring music to stop-time animation and motion picture scenes available on the internet. Advanced notation techniques including full score and individual parts will also be covered.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**MUS 180**  
**Music Laboratory**

*Corequisite: MUS 165 or 167*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*  
This course is designed to provide students enrolled in electronic music courses with supervised study or practice.

**1 Unit**  
**54 Lab hours**

**MUS 181**  
**Applied Music I**

*Prerequisite: Audition*  
*Corequisite: Enrollment in a Rio Hondo College Large Ensemble (either MUS 116 or MUS 117 or MUS 120 or MUS 134 or MUS 138 or MUS 139)*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course offers individual instruction in voice, piano, guitar, band or orchestral instruments with an assigned instructor. Emphasis will be placed on study at the beginning level of technique and repertoire. Weekly, it includes one recital class, and one individual lesson. Performance for a faculty jury will be required at the end of the semester.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 216**  
**Advanced Music Ensemble for Diverse Instruments I**

*Prerequisite: MUS 117*  
*Transfers to: CSU*

This course is designed for the advanced electric, acoustic instrumental, and vocal students to broaden their abilities to perform in an ensemble. The course content,

which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

**2.5 Units**  
**27 Lecture hours**  
**54 Lab hours**

**MUS 217**  
**Advanced Music Ensemble for Diverse Instruments II**

*Prerequisite: MUS 216*  
*Transfers to: CSU*

This course is designed for the advanced electric, acoustic instrumental, and vocal students who want to interpret and perform ensemble repertoire at a professional level. The course content, which will depend upon the instrumental and vocal makeup of the class, will include a diversity of approaches that might include Latin, Asian, Popular and contemporary Classical Music.

**2.5 Units**  
**27 Lecture hours**  
**54 Lab hours**

**MUS 220**  
**Vocal Arts Ensemble II**

*Prerequisite: MUS 120*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for the intermediate vocal student who seeks an opportunity to perform in a vocal ensemble. Participation in public performance is required. The repertoire will include a diversity of sections including intermediate level classical choral literature, world music, popular and contemporary music. Successful completion of MUS 120 is required to enroll.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 240**  
**Advanced Voice**

*Prerequisite: MUS 142 with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for the student interested in further developing the interpretive and technical demands inherent in advanced vocal performance. Attention is given to a detailed study and analysis of vocal technique and interpretation. Public performance will be required.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 245**  
**Advanced Piano**

*Prerequisite: MUS 148 with a "C" or better*  
*Transfers to: UC, CSU*  
This course is designed for the

student interested in further developing the interpretive and technical demands inherent in advanced piano literature. Attention is given to a detailed study and analysis of various musical periods and styles.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 251**  
**Advanced Guitar I**

*Prerequisite: MUS 151 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This advanced level course is designed for students who seek to broaden their understanding of guitar literature by performing difficult works. Attention is given to the refinement and polishing of technique through scales, arpeggios, sightreading, interpretation, and tonal production, as well as analysis of various musical periods and styles.

**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**MUS 290**  
**Cooperative Work Experience/ Internship for Music Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in business, industrial, non-profit, studio, community and professional music organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of music and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;*  
*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;*  
*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**MUS 299**  
**Directed Study: Music**

*Transfers to: UC, CSU*  
Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to

prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.  
**1 to 4 Units**  
**54 to 216 Lab hours**

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## NURSING – ASSOCIATE DEGREE

Division of Health Sciences  
& Nursing

**ADN 075**  
**LVN Transition into the Associate Degree Nursing Program**  
*Prerequisite: Acceptance into Nursing Program and Current LVN License*  
*Advisory: READ 023 or appropriate assessment; MATH 070 or appropriate assessment*

This short-term course provides an overview of the Associate Degree Nursing Program. The focus is on successful learning strategies and the development of critical thinking skills. An overview of the Systems Developmental Stress Model is included as a framework for the nursing process and the Associate Degree Nursing Curriculum. Also included is an in depth study of the nursing process including physical assessment, nursing diagnosis, interventions and evaluations. The nursing skills required for physical assessment and basic patient care will be presented. This course is open to all career ladder LVN and 30 unit option students entering the second year of the Associate Degree Nursing Program.  
**2.5 Units**  
**36 Lecture hours**  
**27 Lab hours**

**ADN 150**  
**Medical/Surgical Nursing I**  
*Prerequisite: BIOL 222, ENGL 101, and ADN 151 with a grade of "C" or better*  
*Corequisite: ADN 154*  
*Transfers to: CSU*

This course focuses on the application of the nursing process in caring for patients with disturbances in the digestive and renal systems, fluid and electrolyte status and acid/base balance, endocrine, cardiovascular and respiratory systems. The pathophysiology of disease processes, as well as medical and nursing interventions, is discussed. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate degree Nursing Program.  
**8 Units**  
**72 Lecture hours**  
**216 Lab hours**

**ADN 151**  
**Clinical Nursing Concepts**  
*Prerequisite: BIOL 125, 222, and 226 with a grade of "C" or better; ENGL 101 or appropriate assessment*  
*Advisory: READ 023 or appropriate assessment; MATH 070 or appropriate assessment*  
*Transfers to: CSU*

This is an introductory course in basic clinical nursing concepts. The student will be introduced to a theoretical framework for nursing practice including the nursing process and the conceptual model used in the Associate Degree Nursing Program. Concepts related to therapeutic communication, legal and ethical issue and documentation are included. The nursing skills required for physical assessment and individualized patient care will be presented. The course includes laboratory practice and experience in the care of patients in the clinical setting. This course is designed for students in the Associate Degree Nursing program.  
**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**ADN 154**  
**Pharmacology**  
*Prerequisite: ADN 151 with a grade of "C" or better*  
*Corequisite: ADN 150*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This is an introduction pharmacology course that focuses on the study of drugs most frequently prescribed. The course emphasis is on basic techniques and computations used in the administration of medications as well as the special nursing considerations that pertain to the safe administration of medication. Completion of this course allows the Associate Degree Nursing student to safely administer

medication to patients under the supervision of the nursing instructor.  
**2 Units**  
**27 Lecture hours**  
**27 Lab hours**

**ADN 155**  
**Nursing Process: Childbearing Family/ Women's Health**  
*Prerequisite: ADN 150 and ADN 154 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for the Associate Degree Nursing student. It focuses on the biological, intrapersonal/interpersonal and developmental aspects of human reproduction. The nursing process is utilized in meeting maternal, newborn and family needs as they relate to human reproduction. This course also focuses on women's health issues with regards to fertility, family planning, gynecological problems and related needs, and the utilization of the nursing process to meet those needs.  
**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**ADN 156**  
**Nursing Process Applied to the Care of Children**  
*Prerequisite: ADN 150 and ADN 154 with a grade of "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course focuses on the application of the nursing process in caring for children. Emphasis is placed on normal growth and development patterns of the growing child and developmental, biological, interpersonal and intrapersonal stressors affecting children and their families. The pathophysiology of disease processes that may occur during childhood and related medical and nursing interventions are discussed. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program.  
**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**ADN 250**  
**Advanced Pharmacology**  
*Prerequisite: ADN 155 and ADN 156 (for generic ADN students) with a grade "C" or better; ADN 075 (for LVN to ADN students) with a grade "C" or better*  
*Advisory: ENGL 101; READ 023 or appropriate assessment; MATH 070 or MATH 070D or MATH 073 or appropriate assessment*  
*Transfers to: CSU*  
 This is an advanced pharmacology course that focuses on the skills and study of medications used

for neurological, psychiatric, and medical-surgical concepts. The course emphasis is on advanced techniques and computations used in the administration of medications utilizing the nursing process and the Systems Developmental Stress Model, as well as the special nursing considerations that pertain to the safe administration of medication. Study of this course allows the Associate Degree Nursing student to continue to safely administer medications to patients.

**1 Unit**  
**18 Lecture hours**

**ADN 251**  
**Nursing Process Applied to Aging, Perception, Coordination and Mobility**

*Prerequisite:* ADN 155 and ADN 156 (for generic ADN students) with minimum grade of "C" or better; ADN 075 (for LVN to ADN students) with a grade of "C" or better

*Corequisite:* ADN 252 (students who have an active psychiatric technician license are exempt from this corequisite) and ADN 250

*Transfers to:* CSU

This course focuses on the aging process as it relates to normal aging, changing biological, interpersonal and intrapersonal needs. It also focuses on the application of the nursing process in caring for patients with disturbances in perception, coordination and mobility. The pathophysiology of disease processes, as well as medical and nursing interventions and rehabilitative approaches to restoring and maintaining optimum health are discussed. The students will apply the theoretical concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program.

**4.5 Units**  
**36 Lecture hours**  
**136 Lab hours**

**ADN 252**  
**Psychiatric/Mental Health Nursing**

*Prerequisite:* ADN 155 and ADN 156 (for generic ADN students) with a grade of "C" or better; ADN 075 (for LVN to ADN students) with a grade of "C" or better

*Corequisite:* ADN 251 (students who have an active psychiatric technician license are exempt from this course) and ADN 250

*Transfers to:* CSU

This course focuses on application of the nursing process as a problem solving approach to assessment, problem identification and intervention for patients with psychiatric and mental health problems. Basic concepts related to biological, intrapersonal and interpersonal factors in mental health and mental illness are discussed. This course is designed for students in the Associate Degree Nursing Program.

**3.5 Units**  
**36 Lecture hours**  
**81 Lab hours**

**ADN 253**  
**Nursing Process Applied to Advanced Concepts**

*Prerequisite:* ADN 250, ADN 251 and ADN 252 with a grade of "C" or better  
*Transfers to:* CSU

This course focuses on the use of the nursing process in caring for patients requiring complex nursing care in general medical/surgical settings. The course also focuses on generalized emergencies, immunologic problems and oncologic problems. Nursing theory from previous courses is integrated as the student applies advanced concepts in the clinical setting. This course is designed for students in the Associate Degree Nursing Program.

**5 Units**  
**36 Lecture hours**  
**162 Lab hours**

**ADN 254**  
**Leadership and Management in Nursing**

*Prerequisite:* ADN 253 with a minimum grade of "C" or better  
*Transfers to:* CSU

This course focuses on theories and principles of leadership and management. It also addresses legal and ethical issues, current trends in nursing and changes in the delivery of health care affecting nursing practice. The students will apply the concepts and principles related to leadership and management through a preceptorship experience in the clinical setting. This course is designed for students in the Associate Degree Nursing Program.

**4 Units**  
**27 Lecture hours**  
**135 Lab hours**

**ADN 290**  
**Cooperative Work Experience/ Internship for Nursing Related Fields**

*Prerequisite:* ADN 154, 155, 156 or equivalent  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment  
*Transfers to:* CSU

This course supports and reinforces on-the-job training in health care institutions under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for second year nursing students currently enrolled in Rio Hondo's nursing program and have completed the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours; 3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours; 3 Units/225 hours; 4 Units/300 hours*  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

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## NURSING – VOCATIONAL

### Division of Health Sciences & Nursing

**VN 061**  
**Basic Fundamentals of Nursing**

*Prerequisite:* HS 060; PSY 101  
*Corequisite:* VN 061L

This course is designed for the entry level vocational nursing student with a focus on the nursing process and its application in medical/surgical settings. The role of the Licensed Vocational Nurse in providing care for patients in a variety of situations is discussed. This course is open to students enrolled in the Vocational Nursing program and is required for Vocational Nursing licensure.

**3.5 Units**  
**63 Lecture hours**

**VN 061L**  
**Basic Fundamentals of Nursing Laboratory**

*Prerequisite:* HS 060; PSY 101  
*Corequisite:* VN 061  
*Advisory:* READ 023 or appropriate assessment

This course is designed to provide the entry level vocational nursing student with the opportunity to learn basic nursing skills in the Health Science Skills laboratory and the clinical setting within the context of the nursing process. The student will apply the role of the Licensed Vocational Nurse in the clinical medical surgical setting. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

**5 Units**  
**270 Lab hours**

**VN 071L**  
**Introduction to Medical-Surgical Nursing Lab**

*Prerequisite:* VN 061 with a grade of "C" or better and VN 061L with a grade of "Pass"

This course will provide the student with the opportunity to use the nursing process at a beginning level to care for patients in the clinical setting. The student will develop competency in data collection and basic nursing skills. Special emphasis will be placed on the care of the patient with problems of the endocrine, musculoskeletal and integumentary systems, as well as the older adult. This course is open to students enrolled in the

Vocational Nursing Program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

**3.5 Units**

**189 Lab hours**

**VN 072L**

**Intermediate Medical-Surgical Nursing Lab**

*Prerequisite:* VN 071L with a grade of "Pass"; VN 074 and VN 075 with a grade of "C" or better

*Corequisite:* VN 073

This course will provide the student with the opportunity to use the nursing process with increasing independence in providing care for patients in the clinical setting. The student will increase competency in data collection and nursing skills. Special emphasis will be placed on the care of the patient with problems of the cardiovascular respiratory, gastrointestinal and renal systems. This course is open to students enrolled in the Vocational Nursing program and is required for Vocational Nursing licensure. Offered on a pass/no pass basis.

**3.5 Units**

**189 Lab hours**

**VN 073**

**Basic Pharmacology**

*Prerequisite:* VN 061 with a grade of "C" or better and VN 061L with a grade of "Pass"

*Advisory:* HS 045 and READ 023 or appropriate assessment

This is an introductory course of basic techniques and computations used in the administration of medications. Completion of the course prepares the student to safely administer medications to patients under the supervision of the nursing instructor. This course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nursing Licensure.

**2 Units**

**36 Lecture hours**

**VN 074**

**Nursing Care of Patients with Integumentary/Orthopedic Problems and Concepts of Gerontologic Nursing**

*Prerequisite:* VN 061 with a grade of "C" or better and VN 061L with a grade of "Pass"

Using the Systems Developmental Stress Model, The Nursing Process, and Erickson's Psycho-Social Theory of Human Development, this course is designed to prepare the vocational nursing student with the foundational knowledge necessary to care for the aging patient, and patients with disorders of the musculoskeletal and Integumentary systems. This course is open to students enrolled in the Vocational Nursing Program.

**2.5 Units**

**45 Lecture hours**

**VN 075**

**Nursing Care of Patients with Endocrine Problems**

*Prerequisite:* VN 061 with a grade of "C" or better and VN 061L with a grade of "Pass"

This course focuses on the use of the nursing process in caring for individuals with disturbances of the pancreas, thyroid, parathyroid, adrenal and pituitary glands. The pathophysiology, assessment data, nursing problems, medical and nursing interventions for patients with endocrine problems are discussed. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure.

**1 Unit**

**18 Lecture hours**

**VN 076**

**Nursing Care of Patients with Renal, Urinary and Gastrointestinal Problems**

*Prerequisite:* VN 071L with a grade of "Pass"; VN 074 and VN 075 with a grade of "C" or better

*Corequisite:* VN 073

This course focuses on the application of the nursing process in medical surgical situations for the patient with gastrointestinal and renal problems. Emphasis is placed on the application of principles of nutrition in caring for patients with gastrointestinal and renal dysfunction. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure.

**3.5 Units**

**63 Lecture hours**

**VN 077**

**Nursing Care of Patients with Cardiovascular and Respiratory Nursing Problems**

*Prerequisite:* VN 071L with a grade of "Pass"; VN 074 and VN 075 with a grade of "C" or better

*Corequisite:* VN 073

Using the Systems Developmental Stress Model, The Nursing Process, and Erickson's Psycho-Social Theory of Human Development, this course is designed to prepare the vocational nursing student with the foundational knowledge necessary to care for patients with cardiovascular and Respiratory disorders. This course is open to students enrolled in the Vocational Nursing Program.

**3 Units**

**54 Lecture hours**

**VN 081L**

**Maternal and Pediatric Nursing Lab**

*Prerequisite:* VN 072L with a grade of "Pass"; VN 073, VN 074, VN 075, VN 076 and VN 077 with a grade of "C" or better

*Corequisite:* VN 084

This course will provide the student with the opportunity to use the nursing process with increasing independence in providing care for

patients in the clinical setting. The student will increase competency in data collection and nursing skills. Special emphasis will be placed on the care of the pediatric, antepartum, intrapartum, postpartum and newborn patient. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure. Offered on a pass/no pass basis.

**2.5 Units**

**135 Lab hours**

**VN 082L**

**Advanced Medical/Surgical Nursing Laboratory**

*Prerequisite:* VN 081L with a grade of "Pass" and VN 084 with a grade of "C" or better

This course will provide the student with the opportunity to apply learned leadership skills within the Vocational Nurse scope of practice. The student will utilize the nursing process with increasing independence and accountability in providing care for patients in the clinical setting. Special emphasis will be placed on the care of medical/surgical patients with complex problems, neurological system disorders and oncological problems. The student will have the opportunity to further develop the necessary communication skills needed to provide care for patients with mental health problems. This course is open to students enrolled in the Vocational Nursing Program and is required for Vocational Nurse licensure.

**3.5 Units**

**189 Lab hours**

**VN 083**

**Applied Pharmacology**

*Prerequisite:* VN 073 with a grade of "C" or better

Using the Systems Developmental Stress Model, The Nursing Process, and Erickson's Psycho-Social Theory of Human Development, this course is designed to prepare the vocational nursing student with the advanced knowledge necessary to safely administer medications to patients and accurately assess the patient response to medication therapy under the supervision of the nursing instructor. This course is open to students enrolled in the Vocational Nursing Program.

**2 Units**

**36 Lecture hours**

**VN 084**

**Maternal and Pediatric Nursing**

*Prerequisite:* VN 072L with a grade of "Pass"; VN 073, VN 074, VN 075, VN 076 and VN 077 with a grade of "C" or better

*Corequisite:* VN 081L

This course focuses on growth and development with concomitant problems traced from newborn through infancy, toddler, preschool, school-age and the adolescent. Nursing care

appropriate to the developmental stage of the child and the focus of the pediatric problems including biological and psychological problems affecting the well and hospitalized child and family. This course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nursing Licensure.

**4 Units**  
**72 Lecture hours**

**VN 085**  
**Leadership & Supervision for the Vocational Nurse**

*Prerequisite: VN 072L with a grade of "Pass"; VN 073, VN 074, VN 075, VN 076, and VN 077 with a grade of "C" or better*

This course will introduce principles of leadership, group dynamics, delegation, and effective communication in working relationships for the vocational nurse. Emphasis is placed on delegation and supervision of nursing assistants, other vocational nurses, and unlicensed assistive personnel. The course is open to students enrolled in the Vocational Nursing Program and is required for the Vocational Nurse licensure.

**0.5 Unit**  
**9 Lecture hours**

**VN 086**  
**Mental Health and Neurological Nursing Problems**

*Prerequisite: VN 081L with a grade of "Pass" and VN 084 with a grade of "C" or better*

This course presents mental health concepts that relate to emotional issues influencing a patient's well-being and problems related to the neurological system. Emphasis will be placed on the nursing process, as it relates to problems of neurological function and mental health. This course is open to those students enrolled in the Vocational Nursing Program and is required for Vocational Nursing licensure.

**3 Units**  
**54 Lecture hours**

**VN 087**  
**Nursing Care of Patients with Cancer**

*Prerequisite: VN 072L and VN 081L with a grade of "Pass"; VN 073, VN 074, VN 075, VN 076, VN 077 and VN 084 with a grade of "C" or better*

This course focuses on the application of the nursing process in medical-surgical situations for the patient with cancer diagnoses of various body systems and immune deficiency disorders. Emphasis is placed on the physical, psychological, and psychosocial effects of diagnosis, medical therapy, and nursing intervention with the application of principles of nutrition, pharmacokinetics, and palliative care in caring for patients with cancer. The course is open to students enrolled in the Vocational

Nursing Program and is required for the Vocational Nurse licensure.

**1 Unit**  
**18 Lecture hours**

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## OPERATING ENGINEERS

Division of Career & Technical Education

**OENG 001**  
**Introduction to Apprenticeship**

*Prerequisite: Registration as a State Indentured Apprentice*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: making yourself valuable, safety, first aid, the cost of accidents, industry terminology, setting up a string line, standard industry hand signals, labor unions and learning to operate heavy equipment.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 002**  
**Grade Checking**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: safety consciousness, layout and staking methods for subdivisions, streets, buildings, underground structure excavation, right angle triangles, and curve radii.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 003**  
**Equipment Operator**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: preventive maintenance of heavy equipment, operation of heavy equipment and political science.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 004**  
**Plan Reading**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: reading and interpreting grading plans for highways, streets and subdivisions.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 005**  
**Skills Specialization**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the labor movement in the United States, relationship of politics to construction work, preventive maintenance, and the operation of heavy equipment.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 012**  
**Heavy Duty Repairman**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the safe use oxyacetylene cutting equipment, the technique of brazing, and electric arc welding.

**2 Units**  
**36 Lecture hours**  
**36 Lab hours**

**OENG 013**  
**Heavy Duty Repairman**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: the principles of hydraulics,

how a hydraulic system works and the practical uses of hydraulics.

**2 Units**

**36 Lecture hours**

**36 Lab hours**

#### **OENG 014**

##### **Heavy Duty Repairman**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: diagnosis, service and repair of hydraulic valves, motors, pumps and cylinders; diagnosis and repair of variable speed hydraulic drives; service and maintenance of pneumatic systems used on heavy equipment and heavy trucks.

**2 Units**

**36 Lecture hours**

**36 Lab hours**

#### **OENG 015**

##### **Heavy Duty Repairman**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics covered include: internal combustion engine theory and servicing the fuel, lubricating, and governing systems of gasoline and diesel engines.

**2 Units**

**36 Lecture hours**

**36 Lab hours**

#### **OENG 016**

##### **Heavy Duty Repairman**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices employed full-time in the operating engineer field. Topics include: clutches, mechanical transmissions, differentials, final drives, crawler tractor undercarriage, and crawler tractor track assemblies.

**2 Units**

**36 Lecture hours**

**36 Lab hours**

#### **OENG 021**

##### **Grades and Plans**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 030 or appropriate assessment*

This course is designed to develop the ability to read grade plans, establish lines and elevations from previously established control points defined in the grade plans and learn how to check grade plans.

**2 Units**

**36 Lecture hours**

**36 Lab hours**

#### **OENG 022**

##### **Structural Masonry Inspection**

*Prerequisite: State Indentured Apprentice in the Operating Engineers Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, masonry inspection testing, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

#### **OENG 023**

##### **Reinforced Concrete Inspection**

*Prerequisite: Must be an Indentured Apprentice in the Operating Engineers State Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, applications of reinforced concrete structure, sample testing, industry terminology, reinforced concrete inspection testing, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

#### **OENG 024**

##### **Structural Steel/Welding Inspection**

*Prerequisite: Must be an Indentured Apprentice for the State of California in the Operating Engineers Training Trust Apprenticeship Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or*

*appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, structural steel/welding inspection testing, analytical blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

#### **OENG 025**

##### **Prestressed Concrete Inspector**

*Prerequisite: Indentured Apprentice for the State of California in the Operating Engineers Training Program*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include safety, industry terminology, prestressed concrete inspection, blueprint reading, field interpretation, and successful completion of the industry standard certification examination.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

#### **OENG 026**

##### **Soil Testing and Inspection**

*Prerequisite: Must be an Indentured Apprentice in the Operating Engineers Training Trust Apprenticeship Program in the classification of Special Inspection*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; MATH 020 or appropriate assessment*

This course is designed to meet the needs of State Indentured Apprentices with the State of California who are interested in the field of Operating Engineers Inspectors. Topics include industry safety, industry terminology, inspection testing procedures, blueprint reading, field interpretation, and successful completion of a certification class sponsored by the American Concrete Institute and Nuclear Safety Course.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

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# PHILOSOPHY

Division of Behavioral  
& Social Sciences

## PHIL 101

### Introduction to Philosophy

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course introduces philosophical ideas and methods concerning knowledge, reality and values. Expected topics will include the sources and limits of knowledge, and the nature of reality. Other topics that may be examined from a philosophical perspective include the nature of the self, truth, ethics, religion, science, language, beauty and art, political theory, or mind. This course is appropriate for anyone seeking a broader program of philosophical study, or to fulfill general Humanities or Philosophy major requirements.

**3 Units**

**54 Lecture hours**

## PHIL 101H

### Introduction to Philosophy Honors

*Prerequisite: ENGL 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course introduces philosophical ideas and methods concerning knowledge, reality and values. Expected topics will include the sources and limits of knowledge, and the nature of reality. Other topics that may be examined from a philosophical perspective include the nature of the self, truth, ethics, religion, science, language, beauty and art, political theory, or mind. This course is intended for those who meet Honors Program requirements.

**3 Units**

**54 Lecture hours**

## PHIL 110

### Critical Thinking

*Prerequisite: ENGL 101 or appropriate assessment*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is an introduction to the methods and techniques of informal reasoning. Topics include schematizing and articulating arguments, causal arguments, analogical arguments, testimony arguments, informal fallacies, and others. Emphasis on the application of critical thinking for effective writing will be reflected in the frequency, scope, and nature of course writing assignments, which will be evaluated with regard to both content and form. Students should expect to write approximately 8000 words in various writing assign-

ments. This course is appropriate for students seeking to improve their writing and reasoning skills.

**3 Units**

**54 Lecture hours**

## PHIL 112

### Introduction to Logic

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or MATH 030D or appropriate assessment*

*Transfers to: UC, CSU*

This course introduces the formal methods and principles of deductive logic. Topics include translation between natural and formal language, syllogistic logic, and propositional logic. This course is especially recommended for students of mathematics, business, computer science, science, engineering, law, and humanities.

**3 Units**

**54 Lecture hours**

## PHIL 120

### Introduction to Ethics

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This introductory level course is for students interested in the humanities, law, medicine, politics, social science and related fields, and will expose them to some of the most profound moral and ethical questions in the Western philosophical tradition. We will examine the concept of morality and values, representative ethical theories, and may include their applications to moral problems.

**3 Units**

**54 Lecture hours**

## PHIL 124

### History of Philosophy: Ancient

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This introductory level course is for those interested specifically in the earliest stages of Ancient Western philosophy. We address the development of Greek philosophy from the Pre-Socratics through Aristotle. We may also include Hellenistic, Roman, medieval or non-western thinkers. Beyond a study of the figures and key ideas, we will discuss the early view of philosophy as a "way of life," and consider how these movements were intended to transform the lives of those who followed them.

**3 Units**

**54 Lecture hours**

## PHIL 126

### History of Philosophy: Modern

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This introductory level course is intended for all students interested in

the Modern period of Western Philosophy (16th through 18th Century). We emphasize broad epistemological and metaphysical developments through close analysis of primary texts. Philosophers to be studied will include Descartes and other Rationalists, Hume and other Empiricists, and Kant.

**3 Units**

**54 Lecture hours**

## PHIL 128

### Introduction to Political Philosophy

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods.

**3 Units**

**54 Lecture hours**

## PHIL 135

### Philosophy and Contemporary Issues

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This introductory course explores the philosophical aspects of a variety of issues of contemporary interest. This course is intended for all students interested in applying methods of philosophy to contemporary topics which may include, but are not limited to: war/terrorism, sex work, cloning, euthanasia, suicide, philosophical issues pertaining to race or gender, genetic engineering, illicit drug use, business ethics, or artificial intelligence.

**3 Units**

**54 Lecture hours**

## PHIL 140

### Philosophy of Religion

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This introductory level course is intended for all students seeking a thoughtful exploration of religious issues in a non-sectarian context, or as part of a broader program of philosophical study. We will address Western religion from a philosophical perspective, including arguments for and against the existence of God, and an investigation into the status of religious beliefs. Additional topics may include a consideration of the evolution-creationism debate, and a discussion of religious pluralism.

**3 Units**

**54 Lecture hours**

## PHIL 299

### Directed Study: Philosophy

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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# PHOTOGRAPHY

## Division of Arts & Cultural Programs

### PHTO 185

#### Introduction to Digital Photography

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This introductory course covers basic technical and conceptual skills in digital photography, including digital camera use, principles of photographic composition, digital image editing, and digital printing. This course is designed for non-photography majors interested in gaining experience with digital photography. Students are required to supply their own digital camera.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

### PHTO 190

#### Beginning Photography

*Advisory: READ 023 or appropriate assessment; ART 120*

*Transfers to: UC, CSU*

This course is designed for students who wish to study the basic technical

and conceptual approaches to contemporary photography. Traditional black and white photography techniques are explored, with special emphasis on the basic use of the 35 mm camera and enlarger as well as the processing of black and white film and printing paper. Students are required to provide their own 35 mm camera with manual controls.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

### PHTO 191

#### Intermediate Photography

*Prerequisite: PHTO 190*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for students who have successfully completed beginning photography and wish to study more advanced technical and conceptual approaches to contemporary black and white photography in a 35mm film based, wet lab environment. Techniques such as the use of studio lighting, light meters, toners, hand coloring, and solarization are explored, with special emphasis given to understanding the conceptual framework for the production and analysis of both personal and commercial photographic imagery. Students are required to provide their own 35mm camera with manual controls.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

### PHTO 290

#### Medium and Large Format Photography

*Prerequisite: PHTO 190*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for students who have successfully completed beginning photography and wish to study more advanced technical and conceptual approaches to contemporary black and white photography using medium and large format films and cameras in a traditional wet lab environment. Special emphasis is given to the understanding and analysis of photographic imagery.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

### PHTO 292

#### Digital Photography

*Prerequisite: PHTO 185 or PHTO 190*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for students who have successfully completed PHTO 190 and have a working knowledge of basic camera controls and photographic composition. It

will cover use of digital cameras, image editing and manipulation, digital printing, and the expression of ideas through digital photographs. Students are required to supply their own digital camera.

**3 Units**

**36 Lecture hours**

**72 Lab hours**

### PHTO 299

#### Directed Study: Photography

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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# PHYSICAL EDUCATION

## Division of Physical Education

**(For Dance courses – See Dance)**

Dance activity courses may be used in place of P.E. activity courses to fulfill degree requirements.

Students may select several different courses or may enroll in a course and continue to the next level of the same course the following semester. Courses labeled "I" and "II" fall into the continued instruction category.

**PE 101  
Tennis I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a beginning tennis class designed to take the student to a recreational level in skills. Instruction in the serve, groundstroke, volley, and rules are taught so that the student can compete on a recreational level.

**1 Unit  
54 Lab hours**

**PE 102  
Intercollegiate Baseball I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the student interested in competing in baseball at the collegiate level. Instruction will focus on the introduction of advanced drills in the area of offense, defense and pitching. Special attention will be placed on skill development and class participation in preparing students for intercollegiate competition. This course may be taken once and repeated three times for credit.

**1 Unit  
54 Lab hours**

**PE 103  
Softball I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the beginning student who wishes to gain the fundamental skills of softball. It is designed to present the following skills to the student; throwing, batting, bunting and defense. Additionally, the individual field positions and the responsibilities of team work will be emphasized.

**1 Unit  
54 Lab hours**

**PE 104  
Volleyball I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is a beginning class designed to present the basic fundamental skills and rules of volleyball. The student will have the opportunity to learn and practice serving, setting, and spiking. The student will also participate in team play. This class is appropriate for students who

have never played volleyball, are just learning the game or haven't played for an extended period of time and want to refresh their skills.

**1 Unit  
54 Lab hours**

**PE 105  
Basketball I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This beginning level course designed for all students will provide instruction in the fundamentals of basketball such as dribbling, passing, shooting, team play, rebounding, defense and strategy. Collegiate rules, class competition, injury prevention and care, and proper diet and fitness needs are included in instruction. The emphasis will be on active participation, basketball as recreation and skill development within this team sport.

**1 Unit  
54 Lab hours**

**PE 107  
Badminton I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a beginning badminton class designed for the student to gain experience of various degrees of competitive play. Instruction in the serve, drive, drop, smash, clears, rules and court etiquette are taught so the student can perform at a competitive level.

**1 Unit  
54 Lab hours**

**PE 108  
Water Polo I**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a course in the fundamentals and skills of water polo such as passing, guarding, shooting, team play, and strategy. Rules and class competition are included.

**1 Unit  
54 Lab hours**

**PE 109  
Soccer I**

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a beginning soccer/ activity class designed for all students interested in developing the physical, technical and tactical elements of the game of soccer. The course will include fundamental skills of soccer which include, dribbling, passing, kicking, collecting and basic concepts

of offensive and defensive tactics. Rules of the game, skill practice and participating in recreational soccer matches will be included.

**1 Unit  
54 Lab hours**

**PE 110  
Futsal (Indoor Soccer)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This class will provide instruction and repetition in the technical and tactical components of Futsal (Indoor Soccer). The Federation of International Football Association (FIFA), which is the governing body of soccer in the world and the United States Soccer Federation (USSF), which is the governing body of soccer in the United States recognize Futsal as its own sport consisting of a smaller, fast-paced technical game. FIFA Futsal Laws of the Game will be introduced to the students. The course will develop skills, provide knowledge of the rules and instruct students to demonstrate Futsal techniques, recognize tactical situations and improve physical fitness.

**1 Unit  
54 Lab hours**

**PE 113  
Golf I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

Golf I is designed for the beginning golfer who wants to gain the fundamental skills that form the basis of good golf technique. The goal of this class is for the student to learn to play a respectable game of golf, to avoid embarrassment, and to enjoy time outdoors with friends. Etiquette, rules and course play are included.

**1 Unit  
54 Lab hours**

**PE 117  
Swimming I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is a beginning class designed to equip students with basic water skills and knowledge in order to make them reasonably safe while in the water. It is suitable for all students interested in basic swimming.

**1 Unit  
54 Lab hours**

**PE 120****Swim for Fitness**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; PE 117*  
*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a swimming/fitness course designed to provide the individual who has beginning swimming skills an opportunity to master the fundamentals of physical fitness as they relate to swimming as an aerobic activity. Emphasis will be placed on aerobic training with some training at the anaerobic threshold and anaerobic levels. This class is suitable for all students interested in swimming as a fitness activity.

**1 Unit****54 Lab hours****PE 121****Track and Field**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is a course in the fundamentals and techniques of the various track and field events.

**1 Unit****54 Lab hours****PE 124****Self Defense**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course is designed for all students interested in developing both personal safety and self-defense techniques through scenario and martial arts training. Through different forms of martial arts training, students will practice both defensive and offensive moves against various forms of attacks. Proficiency in the practical, effective, and tactical use of movement, leverage and strikes will be stressed.

**1 Unit****54 Lab hours****PE 130****Lifelong Fitness Laboratory**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This 45 hour self-paced physical fitness laboratory is designed for all students of the college to develop and encourage positive attitudes and habits with regards to health-related fitness components, including cardiovascular fitness, flexibility, and muscular strength and endurance. Each student, upon entry, will be assessed for risk factors and medical history, as well as body composition, cardiovascular fitness, muscular

strength and endurance, and flexibility to establish an individual fitness profile. From this profile, an individual exercise prescription will be developed. Fitness activity will primarily utilize exercise equipment organized into an aerobic super circuit with additional activity prescribed in the aerobics machine area, body parts weight training area, and flexibility area. It is expected that the student will attend an average of three 50 minute exercise sessions each week. Additional assessment at the conclusion of the semester will provide data necessary to evaluate the accomplishment of stated goals. Offered on a pass/no pass basis.

**1 Unit****54 Lab hours****PE 132****Aqua Aerobics**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfer to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This class is designed to improve muscle tone, flexibility and cardiovascular endurance through exercises using water as a means of resistance. Students will have the opportunity to improve overall body strength and conditioning through callisthenic exercises and routines done in the water. Students who are overweight, pregnant, elderly, recovering from injuries or who haven't exercised recently would find this class appropriate.

**1 Unit****54 Lab hours****PE 133****Wrestling I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This wrestling class is designed for the beginner as well as for the student who wishes to increase their knowledge and skill through practice and competition. It is designed to present the following skills to the student: escapes, pinning combination take-downs, and strategies. The student will learn basic definitions, terminology and rules of wrestling. This class will include information on proper nutrition and fitness conditioning.

**1 Unit****54 Lab hours****PE 134****Fitness Through Rhythmic Aerobics**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed to meet the

needs of daily physical exercise for lifelong fitness and health. It is designed to present the following skills to the student: rhythmic aerobics, step aerobics, core fitness and flexibility training. Additionally, the student will learn basic definitions and terminology of the current fitness arena, assisting them with lifelong fitness goals. Instruction in proper diet, heart rate monitoring, skill proficiency and fitness program planning will be provided to each student. This class is designed for students who are interested in starting an exercise program, or developing an active lifestyle.

**1 Unit****54 Lab hours****PE 136****Pilates Mat 1**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course introduces students to the basic Pilates floor exercises, which are designed to increase strength in the abdominal and spinal musculature. Students will engage in activities and exercises designed to increase awareness of body alignment, increase strength in the torso, spine and limbs, increase endurance, learn breathing techniques to utilize in strength training exercises, increase coordination, improve balance, and will learn about the muscle groups and their actions being utilized in the course. This course is suitable for students interested in dance. Hatha Yoga, athletics and individuals seeking to increase strength to better support the spine in everyday activities.

**1 Unit****54 Lab hours****PE 138****Fitness for Independent Living**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfer to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed to help increase fitness levels for the senior population. It is also appropriate for individuals who are physically challenged, engage in limited activity, and those recovering from injury or long term illness. The purpose of the class is to condition students for strength and flexibility as well as balance, coordination and agility. These skills are important factors in achieving and maintaining the ability to function in daily activities and live independently.

**1 Unit****54 Lab hours**

**PE 139****Cross Training for Fitness**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This cross-training course is designed for the beginning as well as advanced student who wishes to increase their cardiovascular fitness level through a variety of aerobic and anaerobic activities. It is designed to present the following skills to the student: cycling, running, swimming, interval training and introduction to weight training. Additionally, the student will learn basic definitions and terminology of the current fitness arena, assisting them with lifelong fitness goals using a variety of cardiovascular mediums.

**1 Unit**

**54 Lab hours**

**PE 140****Walking for Fitness**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed to meet the needs of daily physical exercise for lifelong fitness and health. Walking is one of the safest and most effective forms of exercise to improve health, and develop and maintain physical fitness. The course provides cardiovascular conditioning through the activity of walking. Instruction in proper diet, heart rate monitoring, skill proficiency and fitness program planning will be provided to each student. This class is designed for students who are interested in starting an exercise program, or developing an active lifestyle.

**1 Unit**

**54 Lab hours**

**PE 142****Techniques of Running**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This advanced course is designed for those students who desire instruction and training for competitive distance running.

**1 Unit**

**54 Lab hours**

**PE 147****Fitness for Athletic Competition**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for any student preparing for intercollegiate athletic competition. The specific

physical fitness routines required by the intercollegiate athlete during the off-season will be addressed. The purpose of the course is to develop a level of physical fitness, strength and conditioning that will enhance the athlete's ability to be successful in intercollegiate competition. This course may be taken once and repeated three times for credit.

**1 Unit**

**54 Lab hours**

**PE 148****Strength Training**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for students who would like to learn the basic fundamentals of strength and conditioning. Students will be introduced to a variety of routines that will enable them to develop a personal exercise plan.

**1 Unit**

**54 Lab hours**

**PE 158****Yoga I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfer to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the beginning student who would like to learn the fundamental physical Asanas (poses) of Hatha Yoga as well as Pranayama (breathing techniques) and Dhyana (meditation techniques). The goal of the course is to integrate the mind, body, and spirit and to give the student tools to better manage stress, alleviate physical tensions, and encourage optimum fitness. In this introductory course, students learn proper physical alignment in the standing poses (Sun Salutation Series A-C, Warrior 1-2, Downward Dog, Upward Dog, Cobra, Triangle, Crescent), the floor poses (Staff, Lotus, Cobbler, Twists, Backbends), and in elementary inversions (Inverted Leg Rest, Headstand Preparation, Wall-Dog Preparation).

**1 Unit**

**54 Lab hours**

**Intercollegiate Athletics  
Coeducational Teams**

**FEDERAL LAW –TITLE IX  
(86.41-Athletics)**

The Federal Law states the following: "No person shall, on the basis of sex, be excluded from participating in, be denied the benefits of, be treated differently from any other person or otherwise be discriminated against in intercollegiate athletics." The law continues to state that colleges may

operate separate teams for members of each sex. However, where the college operates a team in a particular sport for members of one sex, and no comparable team for members of the other sex, members who have been excluded may try out for the team offered, unless the sport involved is deemed a "CONTACT SPORT". Contact sports include football, wrestling, and basketball, and other sports whose basis of major activity involves bodily contact.

**Men's Teams**

Teams are limited to enrollment for those students who are candidates for specific teams. The teams spend a minimum of 10 hours a week in preparation for regularly scheduled competition with other colleges.

**Women's Teams**

Teams are limited to enrollment for those students who are candidates for specific teams. The teams spend a minimum of 10 hours a week in preparation for regularly scheduled competition with other colleges.

**PE 170****Women's Intercollegiate Basketball Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's basketball. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**

**180 Lab hours**

**PE 171****Women's Intercollegiate Tennis Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's tennis. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**

**180 Lab hours**

**PE 172****Women's Intercollegiate Volleyball Team**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed

for students who will be competing at the collegiate level in the sport of women's volleyball. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 173**

**Women's Intercollegiate Softball Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's softball. Students will be required to spend a minimum of 6.75 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**108 Lab hours**

**PE 174**

**Women's Intercollegiate Swim Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's swimming. Students will be required to spend a minimum of 11.25 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 175**

**Women's Intercollegiate Cross-Country Team**

*Advisory: READ 022 or appropriate assessment*

*Transfer to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's cross-country. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 176**

**Women's Intercollegiate Soccer Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of women's soccer. Students will be

required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 180**

**Men's Intercollegiate Baseball Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students that will be competing at the collegiate level in the sport of men's baseball. Students will be required to spend a minimum of 6.75 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**108 Lab hours**

**PE 181**

**Men's Intercollegiate Basketball Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of basketball. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 182**

**Men's Intercollegiate Cross-Country Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's cross-country. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 184**

**Men's and Women's Intercollegiate Golf Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's and women's golf. Students

will be required to spend a minimum of 10 hours a week preparing for competition with other colleges.

**2 Units**  
**180 Lab hours**

**PE 185**

**Men's Intercollegiate Swim Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's swimming. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 186**

**Men's and Women's Intercollegiate Track and Field Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of track & field. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 188**

**Men's and Women's Intercollegiate Water Polo Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's and women's water polo. Students will be required to spend a minimum of 11.25 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 189**

**Men's Intercollegiate Wrestling Team**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's wrestling. Students will be required to spend a minimum of 10 hours a week preparing for competi-

tion with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 190**

**Men's Intercollegiate Soccer Team**

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced course designed for students who will be competing at the collegiate level in the sport of men's soccer. Students will be required to spend a minimum of 10 hours a week preparing for competition with other colleges. This course may be taken once and repeated three times for credit.

**2 Units**  
**180 Lab hours**

**PE 201**

**Tennis II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; PE 101*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an intermediate tennis class designed to take the student beyond recreational skills. Advanced instruction in the serve, groundstrokes, volley, and playing strategy is given. The lob and smash are introduced.

**1 Unit**  
**54 Lab hours**

**PE 202**

**Intercollegiate Baseball II**

*Advisory: PE 102*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the advanced baseball student interested in competing at the collegiate level. Instruction will focus on advanced drills in the area of offense, defense and pitching. Special attention will be placed in preparing students for intercollegiate competition. This course may be taken once and repeated three times for credit.

**1 Unit**  
**54 Lab hours**

**PE 203**

**Softball II**

*Prerequisite: PE 103*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the advanced student who wishes to gain additional skills in the sport of softball. It is designed to present the following skills to the student: throwing, batting, bunting, and defense. In addition to these basic skills, we will cover both offensive and defensive strategies, as well as game situations through class competitions.

**1 Unit**  
**54 Lab hours**

**PE 204**

**Volleyball II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for intermediate volleyball students who have previously played volleyball and are looking to improve their skill and knowledge of the game. Students will develop the intermediate skills of setting, serving, passing, spiking, team offense of 6-1, 5-1 and defensive coverage. Rules and class competition are included.

**1 Unit**  
**54 Lab hours**

**PE 205**

**Basketball II**

*Prerequisite: PE 170 or PE 181, or instructor approval for admission*

*Advisory: READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is designed for the advanced level of basketball that includes the ability to compete in intercollegiate play. Students will receive advanced instruction on strategies, offensive and defensive skills and concepts, intercollegiate rules, diet and fitness instruction and skill development.

**1 Unit**  
**54 Lab hours**

**PE 206**

**Volleyball III**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This course is an advanced class designed to present advanced techniques in serving, passing, setting, spiking, plus jump serving, jump set, jump attack, and various defensive patterns. Students will be participating in more class competition.

**1 Unit**  
**54 Lab hours**

**PE 207**

**Badminton II**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment; PE 107*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an intermediate level badminton class designed for the student to develop the ability to make appropriate responses (relative on their own abilities) to the particular problems posed by the game. Advanced instruction is given in the basic strokes as well as the introduction of Indonesian serve, around-the-head shot, hairpin and flick shot.

**1 Unit**  
**54 Lab hours**

**PE 209**

**Soccer II**

*Prerequisite: PE 109*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This advanced soccer activity class is designed for all students interested in developing the physical, technical and tactical elements of the game of soccer. The course will include analysis of fundamental skills, game strategy, team offense and team defense through participation and an overview of rules. This is an advanced soccer class designed to take the student beyond recreational skills. Team tactics, strategies and systems of play will be emphasized.

**1 Unit**  
**54 Lab hours**

**PE 213**

**Golf II**

**Prerequisite: PE 113**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

Golf II is designed for the intermediate to advanced golfer who wants take their golf game beyond basic fundamentals. Every year thousands of people choose golf as their favorite sports activity. Once learned, golf becomes an enjoyable lifetime recreation. Golf II students will build on the skills learned in Golf I. A major portion of class time is spent on the golf course applying the techniques learned in Golf I.

**1 Unit**  
**54 Lab hours**

**PE 217**

**Swimming II**

*Advisory: READ 022 or appropriate assessment; PE 117*

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an intermediate class designed to provide the individual with the opportunity to learn the elements of good swimming. Students will sharpen their technique in the basic strokes learned in Swim I. Basic components of distance training will be covered along with conditioning methods. Safety and rescue skills are also included.

**1 Unit**  
**54 Lab hours**

**PE 218**

**Swimming III**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*

This is an advanced swimmer's class designed to provide the individual with the opportunity to master the coordination of six swimming strokes in order to swim effectively with ease, endurance, and versatility in

the water. More advanced safety and rescue skills are also included.

**1 Unit**  
**54 Lab hours**

**PE 230**  
**Lifelong Fitness Center II - Cardiovascular Fitness**

*Prerequisite: PE 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or MATH 020C or appropriate assessment*  
*Transfers to: CSU*

This class is a course designed to give the student skills and information to improve their own cardiovascular fitness. This class will involve instruction and practice in techniques that will promote cardiovascular fitness: running, jump rope, core training, aerobic activity, aerobic circuit and resistance bands. The student will learn about the importance of blood pressure, heart rate and diet in relation to cardiovascular disease.

**1 Unit**  
**54 Lab hours**

**PE 239**  
**Physical Fitness II**

*Transfers to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*  
This second-level course is designed to provide men and women a more in-depth experience in physical fitness. Emphasis will be placed on techniques of conditioning in order to promote the goal of lifelong fitness.

**1 Unit**  
**54 Lab hours**

**PE 258**  
**Yoga II**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfer to: UC (credit limit\*), CSU (\*The UC will grant a maximum of 4 units credit for PE activity courses)*  
This course is designed for intermediate students who would like to advance their physical asanas (poses) of Hatha Yoga as well as Pranayama (breathing techniques) and Dhyana (meditation techniques). The goal of the course is to integrate the mind, body, and spirit and to further challenge the students in their physical practice by increasing sustainment, perfecting alignment, and by incorporating twists and wraps. Parivrtta Trikonasana, Prasarita Padottanasana, Malasana, Garudasana, Natasajasana, Utthita Hasta Padangustasana, Chaturanga Dandasana, Purvottanasana, Navasana, Virasana, Ustrasana, Matsyasana, Sarvangasana, Suryya Namaskar B will be covered in depth during the course.

**1 Unit**  
**54 Lab hours**

**PE 290**  
**Cooperative Work Experience/ Internship for Athletic Training Related Fields**

*Prerequisite: PETH 197 and a current CPR card*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in the field of athletic training under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of athletic training and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours*  
**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours*  
**1 to 2 Units**  
**3 Lecture hours**  
**60 to 150 hours**

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## PHYSICAL EDUCATION THEORY

Division of Physical Education

**PETH 115**  
**Fitness Specialist Internship**

*Prerequisite: Completion of the following courses with a grade of "C" or better: PETH 122, PETH 126, PETH 131, PETH 146, PETH 127, PETH 128, PETH 145, MGMT 130*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course will provide students with practical experience in the field of exercise and fitness. Emphasis is placed on participant screening, evaluation, and exercise program design, self-marketing, fitness specialist/client relationships and professional responsibility in a fitness setting. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body. This is the final course offered in the Fitness Specialist Certificate Program.

**2 Units**  
**18 Lecture hours**  
**72 Lab hours**

**PETH 122**  
**Nutrition for Sport and Fitness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*  
This course provides an overview of the role of nutrition to increase energy and enhance performance. Nutrient needs before, during, and after exercise are evaluated for their effect on optimal health. Carbohydrate loading, popular diets and supplementation are discussed. This course is designed for the student pursuing a career in the fitness industry, a certificate in the proposed Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of nutrition on the mind and body.

**3 Units**  
**54 Lecture hours**

**PETH 126**  
**Principles of Strength and Conditioning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: CSU*

This course is designed to include the necessary information needed for those intending to teach strength and conditioning. The course covers anatomy and physiology, bioenergetics, biomechanics, training adaptations, exercise and equipment selection, training techniques, program design, and safety factors. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the effects of exercise on the body and mind.

**3 Units**  
**54 Lecture hours**

**PETH 127**  
**Exercise Physiology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: CSU*  
This course provides an overview of how the body functions under conditions of exercise stress and how fitness training affects health and wellness. Emphasis will be placed on muscular, cardiovascular, respiratory, bioenergetics, and other physiological processes that are affected by exercise. The effects of various diseases will also be addressed. This course is designed for the student pursuing a career in the fitness industry, a Certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the effects of exercise on the body and mind.

**3 Units**  
**54 Lecture hours**

**PETH 128****Fitness Testing and Exercise Prescription**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*  
*Transfers to: CSU*

This course provides an overview of how to assess cardiorespiratory endurance, muscular strength and endurance, flexibility, body fat, pulmonary function, blood pressure, postural analysis, and functional movement, and evaluate the results. Emphasis is placed on determining the appropriate test, conducting the test, interpreting the results, and creating an exercise program. This course is designed for the student pursuing a career in the fitness industry or a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the body.

**3 Units**  
**54 Lecture hours**

**PETH 131****Structure and Analysis of Movement**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course provides an overview of the study of movement as it relates to exercise under both normal and injury conditions. Students will learn the basic anatomical principals used specifically in the area of human performance. Emphasis is placed on applying body alignment, range of motion, stabilization, and acceleration principles to the analysis of movement. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, or those interested in furthering their understanding of the biomechanical effects of exercise on the body.

**3 Units**  
**54 Lecture hours**

**PETH 145****Theory and Analysis of Fitness Instruction**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course provides an introduction to the principles and techniques involved in teaching group exercise and developing a personal trainer / client relationship. Emphasis is placed on client assessment, communication skills, program design, exercise adherence, teaching strategies, and professional responsibility and liability. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body.

**2 Units**  
**36 Lecture hours**

**PETH 146****Training Principles for Special Populations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course provides an overview of the exercise implications for special populations related to age, medical condition and level of fitness. Emphasis is placed on cardiac conditions, diabetes, physical disabilities, HIV and AIDS, asthma, sensory impairments, seniors, children, mentally impaired and pregnant and postpartum women and the issues and barriers to exercise. This course is designed for the student pursuing a career in the fitness industry, a certificate in the Fitness Specialist Program, as well as those interested in furthering their understanding of the effects of exercise on the mind and body.

**2 Units**  
**36 Lecture hours**

**PETH 157****Theory of Lifeguard Training and Water Safety**

*Prerequisite: Swim 500 yards continuously*  
*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for all students who are interested in becoming employed as a lifeguard and/or water safety instructor. Students who successfully pass the requirements as established by the American Red Cross will receive Red Cross Lifeguard Training, First Aid, and Water Safety Instructor cards. This class satisfies one course of the Physical Education activity requirements.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**PETH 188****Theory and Practice of Coaching**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

The purpose of this course is to explore the impact that coaches have on athletic programs in the community. This course is designed for all students interested in coaching individual and team sports. The course will cover topics such as role of the coach, athlete motivation, coaching leadership, coaching work teams, coaching technology, and effective coaching practice. At the end of the course, students will have more insight into coaching in various athletic programs.

**3 Units**  
**54 Lecture hours**

**PETH 191****Health: Personal Issues**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PETH 191, PETH 192, or PETH 196)*

This course is designed for all students that are physically active and interested in learning how to improve and maintain their personal health. Topics covered include the general health principles, nutrition and diet, physical fitness, stress management, sexuality and reproduction, drug/ alcohol use and abuse, consumer and safety issues and the process of death. Students learn how to develop sound health principles through text readings, lectures, assignments/labs and guest speakers.

**3 Units**  
**54 Lecture hours**

**PETH 192****Health: Women's Personal Health**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PETH 191, PETH 192, or PETH 196)*

This course is designed for all students interested in expanding their knowledge regarding health problems and social issues unique to women. Physiological and psychological aspects of nutrition, hygiene, sexuality and reproduction, drugs and chemicals, and common diseases are among the many topics covered. Guest speakers, videos, current events, and text readings will assist the student in developing sound health principles.

**3 Units**  
**54 Lecture hours**

**PETH 193****Standard First Aid and CPR**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students pursuing a career working with the public and for those who want to further their understanding of handling emergency situations. The student will learn how to give immediate care to the suddenly injured or ill person. In addition, students will learn techniques for control of bleeding, splinting, transporting victims, emergency procedures, one person C.P. R. and the use of an AED. Students will have the opportunity to apply these technical procedures in class. This course fulfills the requirements for American Red Cross certifications in both Standard First Aid and Cardiopulmonary Resuscitation (C.P.R.).

**3 Units**  
**54 Lecture hours**

**PETH 194****Introduction to Kinesiology**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for those students who are interested in pursuing a career in the field of kinesiology. The philosophy, history and scientific foundations of kinesiology, exercise science, health/wellness, fitness and sport will be covered. Students will have the opportunity to explore professional career opportunities in teaching, coaching, athletic training, sport management, fitness leadership, sport media and health/wellness. The challenges, future of kinesiology, sport and health/wellness are also addressed.

**3 Units****54 Lecture hours****PETH 195****Contemporary Issues in Athletics and Sports**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

This course will examine the impact of athletics, sports, and physical education in American society. The topics in this course will focus on racism, gender equity, ethics, drug abuse, sexual abuse in sports, and the issue of children in competitive sports activities. Coaching methodologies and future trends in athletics, physical activities, and physical education will be discussed. An emphasis will be placed on developing an appreciation for sports, athletics, and physical education. Upon the successful completion of this course, students will have satisfied the (Title V) requirements for the State of California that allows them to high school sports teams.

**3 Units****54 Lecture hours****PETH 196****Health: Fitness and Wellness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive credit from UC for only one of the following courses: PETH 191, PETH 192, or PETH 196)*

This course is designed for all students who are interested in learning the value of life-long, healthy lifestyles. Students will be given the tools to assist them in making positive life-style changes based on a personal health/fitness profile. Topics covered include: basic anatomy and physiology, nutrition, weight control, tobacco and alcohol, muscle fitness, flexibility, stress reduction, and cardiovascular functioning.

**3 Units****54 Lecture hours****PETH 197****Prevention and Treatment of Athletic Injuries**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course introduces the basic concepts of athletic training, including instruction for prevention, recognition, management and treatment of common injuries in a physically active population. The skills of basic strapping, bracing padding and taping for the prevention and support of injuries will be presented and practiced. This class is recommended for those interested in becoming a Certified Athletic Trainer.

**3 Units****54 Lecture hours****PETH 198****Contemporary Issues Related to Athletic Participation**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for students who are interested in athletic competition. This course presents an overview of contemporary societal issues that have a significant impact on the ability of athletes to be successful in a competitive environment. Topics to be covered in this course include decision making skills, substance abuse, sexual behavior, eating disorders, and athletic eligibility requirements.

**1 Unit****18 Lecture hours****PETH 297****Advanced Athletic Training**

*Prerequisite: PETH 197*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course introduces the advanced concepts of athletic training, including instruction for evaluation and rehabilitation of common athletic injuries. Advanced taping and bracing techniques will also be presented and practiced. This class is designed for students interested in becoming a Certified Athletic Trainer or those who are preparing for a career in any allied health care profession.

**3 Units****54 Lecture hours**

Designed for the future elementary school teacher, this laboratory science course introduces students to the fundamentals of physics and chemistry including properties of the states of matter, physical and chemical changes, solutions and mixtures, motion, forces, energy and light.

**4 Units****54 Lecture hours****54 Lab hours****PHYS 102****Earth and Space Sciences for Teachers**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*  
*Transfers to: CSU*

Designed for the future elementary school teacher, this laboratory science course introduces students to the fundamentals of earth and space sciences including the universe, the solar system, the structure and composition of the Earth, the Earth's atmosphere, and the Earth's water.

**4 Units****54 Lecture hours****54 Lab hours**

## PHYSICS

### Division of Mathematics & Sciences

**PHY 120****Physics for Everyday Use**

*Prerequisite: MATH 050 with a grade of "C" or better or appropriate assessment*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU*  
*(\*Students will receive no credit from UC for PHY 120 if taken after PHY 150 or PHY 211)*

This course investigates the basic characteristics of matter and the interactions that govern its behavior and emphasizes how remarkable everyday phenomena are. Examples from popular culture (movies, TV, and sports) are emphasized. Topics include how to describe an object's motion, how to explain changes in an object's motion, the roles of work and energy, and other topics. The course is oriented to the non-science major, stresses conceptual understanding, and is intended to present students with an opportunity to see how our world works.

**4 Units****54 Lecture hours****54 Lab hours**

## PHYSICAL SCIENCE

### Division of Mathematics & Sciences

**PHYS 101****Physics and Chemistry for Teachers**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 050 or appropriate assessment*  
*Transfers to: CSU*

## PHY 150

### General Physics - I

*Prerequisite:* MATH 175 with a grade of "C" or better or appropriate assessment  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit \*), CSU (\*Students will receive credit from UC for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the first of a two-semester sequence and is designed for students transferring to a four-year institution and planning careers in health professional fields such as medicine, dentistry, veterinary science, pharmacy, and optometry as well as those students in engineering technology and architecture. Students majoring in the biological sciences should consult a counselor as to whether this course satisfies the general preparation requirements for the major at the university. Topics include kinematics, dynamics, energy, work, momentum, and conservation principles.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

## PHY 160

### General Physics - II

*Prerequisite:* PHY 150 with a grade of "C" or better

*Transfers to:* UC (credit limit \*), CSU (\*Students will receive credit from UC for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the second of a two-semester sequence and is designed for students transferring to a four-year institution with majors in health professional fields such as medicine, dentistry, veterinary science, pharmacy, and optometry as well as those students in engineering technology and architecture. Students majoring in the biological sciences should consult a counselor as to whether this course satisfies the general preparation requirements for the major at the university. Topics include thermodynamics, electricity and magnetism, oscillations, waves, optics and quantum physics.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

## PHY 211

### Physics for Scientists and Engineers - I

*Prerequisite/Corequisite:* MATH 190 or MATH 190H

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit \*), CSU (\*Students will receive credit from UC for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the first of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered

are kinematics, dynamics, energy, work, momentum, and conservation principles.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

## PHY 212

### Physics for Scientists and Engineers - II

*Prerequisite:* PHY 211 with a grade of "C" or better

*Corequisite/Prerequisite:* MATH 191  
*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for one physics series: PHY 150 and 160 or PHY 211, PHY 212, and PHY 213)

This course is the second of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered include quantum physics, physical optics, and thermodynamics.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

## PHY 213

### Physics for Scientists and Engineers - III

*Prerequisite:* PHY 212 with a grade of "C" or better

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* UC (credit limit\*), CSU (\*Students will receive credit from UC for one physics series: PHY 150 and PHY 160 or PHY 211, PHY 212, and PHY 213)

This course is the third of a three-semester sequence and is designed for students transferring to a four-year institution with majors in the sciences and engineering. Topics covered are electric fields, electric potential, current, circuits, magnetic fields, Gauss' law, Ampere's law, Maxwell's equations, induction, and electromagnetic waves.

**4 Units**

**54 Lecture hours**

**54 Lab hours**

## PHY 299

### Directed Study: Physics

*Transfers to:* UC, CSU

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall

be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## POLICE ACADEMY

### Division of Public Safety

#### PAC 040

##### Basic Police Recruit Class

*Prerequisite:* Medical clearance, California Department of Justice clearance for firearms training, passing scores on POST written and physical tests (agency sponsored cadets are exempt)

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 4348L

This is a fundamental course which covers criminal law, evidence, procedure and investigation, firearms, first aid, defense tactics, use of chemical agents and other related police subjects. This course meets the educational requirement for basic certification by the Commission on Peace Officer Standards and Training (P.O.S.T.).

**24 Units**

**772 Lecture hours**

**163 Lab hours**

#### PAC 042

##### Police Supervision

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; PAC 040 or PAC 075B, 075C, 075D

This course is designed to explain and apply the elements of supervision oriented to law enforcement personnel. Methods of effective leadership, motivation, communication and techniques of training are presented. This course is certified by the Commission on Peace Officer Standards and Training (POST) for 80 hours/8 hours per day for 10 days.

**1 Unit**

**80 Lecture hours**

#### PAC 043

##### Advanced Officers Course

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; PAC 040 or PAC 075B, 075C

This course is designed for upgrading currently employed law enforcement personnel. The curriculum follows that recommended by the Commission of Peace Officer Standards and

Training. The course is designed to keep peace officers informed of new laws, recent court decisions, current enforcement procedures, new concepts in law enforcement, technology, community relations and other refresher training as may be necessary. This description applies to all PAC 043 series courses.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

#### **PAC 071**

##### **Public Safety Dispatcher Basic Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course meets the POST (California Commission on Peace Officer Standards Training) requirements for the position of public safety dispatcher. The content of this course is a combination of the following topics: Professional Orientation, Criminal Justice System, Law, Communication Technology, Telephone Procedures, Radio Procedures, Missing Persons, Domestic Violence, Referral Services, Cultural Diversity, Sexual Harassment, Hate Crimes, Gang Awareness, Stress Management, Critical Incidents, Telecommunications and Practical Application Activities.

**1.5 Units**  
**120 Lecture hours**

#### **PAC 072**

##### **Records Supervisor**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to expose records supervisors and managers to the various aspects of their assignment. They will learn procedures for minimizing civil liability, new laws and case decisions affecting records maintenance, management strategies for dealing with personnel issues and techniques for improving supervisory skills.

**0.5 Unit**  
**40 Lecture hours**

#### **PAC 073**

##### **Basic Police Records Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course provides police records personnel with the basic skills and knowledge necessary to effectively meet the demands of their specific assignment. The course is certified by the California Commission on Peace Officer Standards and Training.

**0.5 Unit**  
**40 Lecture hours**

#### **PAC 075B**

##### **Basic Course-Module III (Ext)**

*Prerequisite: Medical clearance, California Department of Justice clearance for firearms training, passing scores on*

*POST written and physical tests (agency sponsored cadets are exempt).*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for those interested in becoming a Level III Reserve officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, vehicle operations, report writing, first aid/CPR, cultural diversity, and other related police topics. It is the level of training which satisfies the legal requirements for a Level III Reserve officer.

**5 Units**  
**54 Lecture hours**  
**108 Lab hours**

#### **PAC 075C**

##### **Basic Police Recruit Class - Level II Module**

*Prerequisite: Successful completion of PAC 075B or POST Module III, current (within last 3 years) in PC 832 Arrest and Firearms training requirements, passage of the POST-constructed Comprehensive Module III End-of-Course Proficiency Test within the preceding 12 months, medical clearance, Department of Justice clearance for firearms training*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for those interested in becoming a Level II Reserve officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, community relations, report writing, cultural diversity, and other related police topics. It is training which satisfies the legal requirements for a Level II Reserve officer.

**5 Units**  
**108 Lecture hours**  
**81 Lab hours**

#### **PAC 075D**

##### **Basic Police Recruit Class - Level I Module**

*Prerequisite: Successful completion of PAC 075B and PAC 075C or POST Modules III and II, current (within last 3 years) in PC 832 Arrest and Firearms training requirements, passage of the POST-constructed Comprehensive Module II End-of-Course Proficiency Test within the preceding 12 months, medical clearance, Department of Justice clearance for firearms training*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for those interested in becoming a Level I Reserve officer or a regular peace officer. This course covers criminal law, evidence, investigations, firearms, arrest and control, emergency vehicle operation, and other related police topics. It is the final level of training which constitutes satisfaction of the Regular Basic Course training

requirement and the legal requirements for a Level I Reserve officer.

**8 Units**  
**162 Lecture hours**  
**232 Lab hours**

#### **PAC 076**

##### **Driver Awareness Instructor**

*Prerequisite: Successful completion of a basic police academy*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to develop instructors for Driver Training Awareness courses for the training of police officers in defensive driving techniques. The student will develop a training program including the physical design for a training site. In addition the student will plan and present a lesson on an assigned topic, as well as utilize rating forms to evaluate performance on driving exercises.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

#### **PAC 077**

##### **Driver Training Instructor**

*Prerequisite: Successful completion of a basic police academy*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for those who will serve as instructors for the training of police officers in emergency vehicle operation techniques including collision avoidance, skid control, use of lights and sirens, and high speed pursuit driving. Students will learn how to develop a training program.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

#### **PAC 078**

##### **Requalification - Basic Course**

*Prerequisite: Successful completion of a basic police academy and a California Department of Justice clearance for firearms training*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for individuals who have completed a basic police recruit academy, but have not been active in the law enforcement field for at least three years. It provides a review of the skills and knowledge needed to return to active law enforcement duty. The topics covered include human relations, legal changes and a review of current legal issues, conducting a preliminary investigation, field tactics, the use of force and weaponry, and racial profiling.

**3 Units**  
**96 Lecture hours**  
**40 Lab hours**

**PAC 079****Code Enforcement Officer, Basic Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

The course is designed to enhance the student's communication and field investigation skills when working as a Code Enforcement Officer. The students will be introduced to the following specific code enforcement elements that will enable them to perform their duties: Ethics, Basic Inspection Protocols, Vehicle Abatement, Zoning Code, Substandard Housing, Drug Recognition and Gang Awareness, Abatement of Dangerous Buildings and Substandard Housing, Report Writing, Right of Entry and Inspection Warrants, Case Preparation for Administrative, Civil and Criminal Cases.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 080****Code Enforcement Officer, Advanced Course**

*Prerequisite: PAC 079*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to enhance the communication and field investigation skills of Code Enforcement Officers that are currently working in that capacity. The students will be introduced to the following specific code enforcement elements that will enable them to perform their duties: Legal Aspects, Introduction to Electrical, Mechanical, Plumbing, and Fire Codes, Vector Guidelines, Microbial Contamination for Substandard Housing and Resolving Neighborhood Problems via Problem Oriented Policing Techniques.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 081****Code Enforcement, Introduction to Supervision**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; PAC 079; PAC 080*

This course is designed as a variable format (2-40 Hours Lecture; 2-40 Hours Lab) course for current Code Enforcement Officers or supervisors, new supervisors, or individuals who may desire to seek employment as a supervisor of Code Enforcement Officers. Major topics include; Budgeting, Community Relations and Media, Personnel Issues and Counseling, Leadership, Communication, Cost Recovery, and Report Writing.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 082****Code Enforcement Officer, Intermediate Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment; PAC 079*

This course is designed to enhance the communication and field investigation skills of Code Enforcement Officers that are currently working in that capacity. The students will be introduced to the following code enforcement elements that will enable them to perform their duties: Tactical Communications, Use of Pepper Spray, Basic Courtroom and Administrative Hearing Procedures, Problem Oriented Policing, Communication and Coordination Techniques, and Animal Awareness, including Animal Abuse and Animal Cruelty.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 083****Pre-Academy Physical Fitness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

This course is designed to help prospective police cadets improve their physical performance and keep informed of physical fitness techniques prior to entering the Rio Hondo Police Academy. The curriculum is geared toward and followed by the California Commission on Peace Officer Standards and Training.

**0.148 to 0.741 Unit**  
**8 to 40 Lecture hours**  
**8 to 40 Lab hours**

**PAC 43001****Advanced Officer Development**

*Prerequisite: Completion of basic peace officer training or equivalent*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to keep senior peace officers informed as to the latest innovations in enforcement techniques and concepts which include but are not limited to information sharing; problem oriented policing models, and discretionary decision making. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43003****Community Relations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new community relations issues as well as federal and

state changes and recent requirements which effect current law enforcement procedures. Community relations for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43007****Professional Standards**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Ethical and Professional Standards issues along with Federal and State Law changes and recent requirements which effect current law enforcement procedures, and new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43011****Juvenile Law and Procedures**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

Juvenile Law and Procedures for Officer Development presents new concepts in the law enforcement procedures. This course is designed to keep peace officers informed of current Federal and State Juvenile Law changes and recent requirements which affect current law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43015****Laws of Arrest**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Federal and State Arrest Law changes and recent requirements which affect current law enforcement procedures. Laws of Arrest for Officer Development present new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43016****Search and Seizure**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Federal and State Search and Seizure changes and recent requirements which affect current law enforcement procedures. Search and Seizure for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43017****Presentation of Evidence**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to provide the student with the necessary information and skills needed to observe the rules of evidence as they pertain to relevancy, types of evidence, authentication and chain of custody. This course will provide the student with the necessary information and skills needed to function as a police officer.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43018****Investigative Report Writing**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of current Federal and State Investigative Report Writing laws and recent requirements which affect current law enforcement procedures. Investigative Report Writing for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43019****Vehicle Operations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new vehicle operations procedures affected by Federal and State changes and recent requirements which effect current law enforcement procedures. Vehicle Operations for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher

training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43020****Use of Force**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of current Use of Force, Federal and State laws and recent requirements which affect current law enforcement procedures of the Use of Force for Officer Development and new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43024****Handling Disputes**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new techniques for handling disputes, Federal and State changes and recent requirements which affect current law enforcement procedures. Handling disputes for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43026****Unusual Occurrences**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Unusual Occurrences Procedures, new Federal and State changes and recent requirements which effect current law enforcement procedures. Unusual Occurrences for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43030****Preliminary Investigation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

Preliminary Investigation for Officer Development presents new concepts in law enforcement procedures. This course is designed to keep peace officers informed of new Investigative Techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43032****Physical Fitness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of physical fitness techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. Physical Fitness for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43035****Firearms**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Firearms Techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. Firearms for Officer Development present new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by California Commission on Peace Officer Standards and Training.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43036****Information Systems**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to keep peace officers informed of new Criminal Justice Information Systems, current Federal and State laws and recent requirements which affect current law enforcement procedures. Information Systems for Officer Development presents new concepts in law enforcement procedures. The cur-

riculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43038**

**Gang Awareness**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new Gang Awareness information, current Federal and State laws and recent requirements which affect law enforcement procedures. Gang Awareness for Peace Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.17 to 0.5 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4304**

**Advanced Officer Training, District Attorney**

This course is designed to meet P.O.S.T. requirements for advanced officer training for District Attorney's investigators. The content shall be devoted to a combination of the following subjects: new laws; recent court decisions and/or search and seizure refresher; officer survival techniques; new concepts; procedures; technology; and discretionary decision making.  
**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**PAC 43040**

**Weapons Violations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new Weapons Violations laws, current Federal and State laws and recent requirements which affect current law enforcement procedures. Weapons Violations for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43041**

**Hazardous Materials**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new Hazardous Materials techniques, new Federal and State changes and recent require-

ments which effect current law enforcement procedures. Hazardous Materials for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43043**

**Impact Weapons**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new Impact Weapons instruction, current Federal and State laws and recent requirements which affect current law enforcement procedures. Impact Weapons for Officer Development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43049**

**First Aid/CPR**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new first aid and CPR techniques, current Federal and State laws and recent requirements which affect current law enforcement procedures. First Aid/CPR for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43055**

**Emergency Planning**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to keep peace officers informed of new areas of emergency planning training, current Federal and State laws and recent requirements which affect current law enforcement procedures. Emergency Planning for officer development presents new concepts in law enforcement procedures. The curriculum follows that recommended as refresher training by California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours/**

**PAC 43060**

**Security Basic Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
This course is designed to keep any officer and/or interested students informed of new security basic instruction, current Federal and State laws and recent requirements which affect current law enforcement procedures. Security Basic Course presents new concepts in security procedures. The curriculum follows that recommended for training by the California Commission on Peace Officer Standards and Training and Consumer Affairs.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43061**

**Supervisory Course for Security**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 43060*  
This course is designed to keep officers and/or interested students informed of new supervisory instruction for security personnel, current Federal and State laws and recent requirements which affect current law enforcement procedures. Supervisory Course for Security presents new concepts in security procedures. The curriculum follows that recommended by the California Commission on Peace Officer Standards and Training and Consumer Affairs.  
**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 43062**

**Advanced Security Officer Development**

*Prerequisite: PAC 43060*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
This course is designed to keep senior security officers informed as to the latest innovations in enforcement techniques and concepts which includes information sharing, problem oriented policing models and discretionary decision making. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training and the California Department of Consumer Affairs.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4308**

**Techniques of Teaching Spanish**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to acquaint the non-Spanish speaking public service employee with development

of course, lessons, dialogue and vocabulary materials. Lesson preparation, aids, video tapes and narrative recordings will be used to assist the student in developing a practical knowledge of Spanish.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4311**  
**Supervisory and Management Seminar**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; PAC 040 or PAC 075B, 075C, 075D*

This course is designed to inform and update supervisors and managers in the public safety field. Classroom time will consist of lecture presentations, participation in simulation games, and the sharing of limited outside assignments. Students will have an opportunity to explore their own leadership styles, as well as the unique personality of the police officer. Students will also develop a better understanding of specific skills which will assist them in their roles. The course, while specifically designed for supervisors and managers, would also be of benefit to individuals who are preparing for supervisory positions in the public safety field.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4313**  
**Law Enforcement Instructors Development Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This lecture-workshop is designed for law enforcement training officers and instructors. The student will gain a knowledge of and the ability to organize the law enforcement training functions within the agency as demonstrated by a model which they will develop during the course. The student will develop the ability to prepare a training program including course outlines, lesson plans and audio-visual aids. This ability will be demonstrated by actual presentation of each of the above items. Students will gain the ability to make instructional presentations which they will demonstrate to the class during workshops.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4314**  
**Field Training Officer Course**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed to teach a Police Officer how to train new recruits. This course includes training principles, civil liability, ethics and

integrity, performance goals, principles of instruction, and role model.

**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4317**  
**Crime Scene Investigation**

*Prerequisite: AJ 275*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 104; AJ 208*

This course is designed to present a detailed study of the various investigative and scientific aspects of crime scene investigation. Emphasis will be placed on the collection, preservation, identification and packaging of evidence. Several field problems will be conducted to give the student practical experience in the proper methods of crime scene investigation.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4327**  
**Advanced Latent Fingerprints**

*Prerequisite: PAC 4380*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 104; AJ 208; AJ 275*

This course is designed for students interested in the field of fingerprint comparison, forensics and law enforcement. The course stresses advanced fingerprint identification techniques including the latest print development techniques using various powders, chemicals, and forensic light sources.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4328**  
**Advanced Crime Scene Techniques**

*Prerequisite: AJ 208*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 104; AJ 275; PAC 4317*

This course is designed for students interested in a career in the field of criminal justice and for crime scene investigation personnel. It presupposes a basic knowledge of the crime scene investigation process. Selected types of physical evidence will be examined in depth to include the recognition, collection, and forensic value of selected evidence types. An introduction to the criminalistics laboratory organization and function will be presented.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4330**  
**Trial Preparation and Courtroom Demeanor**

*Prerequisite: AJ 104*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 208; AJ 275; PAC 4317; PAC 4328; PAC 4382*

This course is designed for students interested in a career in the field of criminal justice, forensics and for crime scene personnel. The course will prepare students to give effective testimony in a court of law as related to recognizing, obtaining, developing and preserving physical evidence. The course will include courtroom demeanor, how to qualify as an expert witness, the study of direct and cross examination questions and participation in moot court training.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4337**  
**Rangemaster Instructor School**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This is a variable format (2-40 Hours of Instruction; 2-40 Hours of Lab) course designed to instruct the experienced officer with the operation and maintenance of a firing range. Teaching techniques and the use of revolvers, semiautomatic handguns, rifles, shotguns and fully automatic weapons will be emphasized.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4339**  
**Tactics for Field Officers**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed for field officers to combat complacency or apathy that may have intruded into their behavior. It will reinforce their mental attitude, physical awareness and training that is needed in handling the situational complexities that officers are continually confronted with in the field. It is also designed to stimulate or renew their commitment to good personal practices encouraging safety and the professional delivery of service to the public.

**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4342**  
**Weapons, Semi-Automatic Handguns**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*

This course is designed for personnel who are concerned with semiautomatic pistols as a police service side arm. Overall course will encompass Colt .45 semiautomatic, Smith and

Wesson models 39 and 59, Browning Hi-Power 9 millimeters, plus other uniform and off-duty semiautomatic pistols.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4343**  
**Special Weapons Training**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
This course is designed to familiarize both law enforcement and private security personnel with the latest types of firearms. Emphasis will be placed on the legal aspects of the use of firearms and the safe handling of various types of firearms.  
**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4350**  
**Crime Prevention Theory and Practice**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to acquaint law enforcement personnel with the latest theories and techniques of crime prevention through opportunity reduction. Emphasis will be placed on physical security devices and systems, community involvement in prevention programs, evaluation of crime trends and prevention techniques, development of prevention strategies and program materials, crime prevention and the community planning process, ordinances, zoning and environmental design. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4351**  
**Industrial Security Powers to Arrest and Baton Training**

This course is designed for students who are involved in private security. The contents presented will give an overview of the role of security guards, First Aid basics, Powers to Arrest and P.O.S.T. Certified Baton Training.  
**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**PAC 4352**  
**Industrial Security Baton Powers to Arrest Firearms**

This course is designed for students who are involved in private security. The contents presented will qualify students for certification with the Department of Consumer Affairs in the areas of Powers to Arrest, Firearms, and Baton.  
**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**PAC 4353**  
**Industrial Security Baton Powers to Arrest, Chemical Agents**

This course is designed for students who are involved in private security. The contents presented will qualify students for certification with the Department of Consumer Affairs in the areas of Powers to Arrest, Chemical Agents and Baton.  
**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**PAC 4355**  
**Advanced Police Video/Photography**

*Prerequisite: PHTO 190*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 104; AJ 104; AJ 208; AJ 275*  
This course is designed for students interested in preparing for a career in the field of crime scene video, photography, forensics and law enforcement. The course introduces students to the advanced use of various video and photography techniques employed during a police investigation with special emphasis on documenting a crime scene and preparing evidence for use in a court of law.  
**0.07 to 1.48 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4358**  
**Police Defensive Driving Course**

*Prerequisite: Valid California Driver's License*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to provide officers with an understanding and awareness of the problems inherent in the skills required for defensively driving a police vehicle in everyday use. It is not a red light and siren, high speed pursuit, emergency vehicle operation course. Rather, it is a course with the idea in mind that accidents can be prevented by giving students a series of demonstrations, lectures and practical exercises in basic police vehicle defensive driving techniques which also includes the use of the on-tract skid pan for actual driver training. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4360**  
**Radar Traffic Enforcement**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
Radar Traffic Enforcement course covers the legal issues involved, the nomenclature, concepts and practical operation of police speed control radar. This course is designed to

provide the student with the necessary information and skills needed to function as a radar enforcement officer. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.074 to 1.482 Units**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4362**  
**Child Abuse Investigation**

*Advisory: PAC 040*  
This course is designed to provide the student with the necessary information and skills needed to function as a Child Abuse Investigator. Specifically, this course covers child abuse laws, recognition of abuse, victim treatment, interviewing and investigating techniques, inter-agency coordination and court involvement.  
**0.167 to 0.75 Unit**  
**8 to 40 Lecture hours**

**PAC 4365**  
**Vice Investigation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to provide the student with the necessary information and skills needed to function as vice investigator. Specifically, this course covers the legal issues, types of offenses and investigative techniques used in vice investigation. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4366**  
**Basic Traffic Accident Investigation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to provide the student with the necessary information and skills to conduct basic traffic accident investigations. Specifically, this course covers the reporting investigation, cause determination and prosecution aspects of traffic accident investigation. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4367**  
**Intermediate Traffic Accident Investigation**

*Prerequisite: PAC 4366*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to expand on the student's basic understand-

ing of traffic accident investigation and develop a working knowledge of the following subject areas: traffic engineering, point of impact determination, skid mark analysis, crime lab procedures and insurance fraud. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4376**  
**PC 832 Arrest**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 040*  
This course is designed to provide the student, employed or seeking employment in public agencies, with the skills and information necessary to satisfy the state requirements for the PC 832 Arrest course which covers the California justice system, professional behavior, law, evidence and discretionary decision making. This course can be taken alone or in combination with PAC 4377, PC 832 Firearms and/or PAC 4378, PC 832 Communications and Arrest Methods to satisfy varying agency requirements.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4377**  
**PC 832 Firearms**

*Prerequisite: PAC 4376; Pursuant to Section 13511.5 of the California Penal Code, each student who is not sponsored by a local or other law enforcement agency, must submit written certification from the California Department of Justice certifying no criminal history background which would disqualify the student pursuant to Section 12021.1 P.C.*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
This course is designed to provide the student employed or seeking employment in public agencies with the skills and information necessary to satisfy state requirements for the PC 832 Firearms course which covers firearms safety, care, cleaning, shooting and qualification. This course can be taken alone or in combination with PAC 4376, PC 832 Arrest and/or PAC 4378, PC 832 Communications/Arrest to satisfy varying agency requirements.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4378**  
**PC 832 Communications and Arrest Methods**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; PAC 4376*  
This course is designed to provide the student employed or seeking

employment in public agencies and currently have a working knowledge of the law enforcement functions with the skills and information necessary to satisfy state requirements for the PC 832 Communications and Arrest Techniques course which covers community relations, communications, report writing, arrest control and personal searches. This course can be taken alone or in combination with PAC 4376, PC 832 Arrest and/or PAC 4377, PC 832 Firearms to satisfy varying agency requirements. The curriculum follows that recommended as refresher training by the California Commission on Peace Officer Standards and Training.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4380**  
**Fingerprint Classification**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 104; AJ 208; AJ 275*  
This course is designed for students interested in the field of fingerprint comparison, forensics and law enforcement. The course provides training in the study of the science of fingerprints. Topics include the ethics and professional conduct of fingerprint examiners, the historical development of fingerprint science, fingerprint pattern interpretation, the Henry System of fingerprint classification, the N.C.I.C. classification system, recording inked finger and palm prints, and the automated fingerprint identification system.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4381**  
**Friction Skin Comparison**

*Prerequisite: PAC 4380*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 104; AJ 208; AJ 275*  
This course is designed for students interested in preparing for a career in the field of fingerprint comparisons, forensics and law enforcement. The course provides training in the area of friction skin comparison. Topics include the uniqueness of fingerprints, principles of comparison and individualization, type of ridge characteristics, identification protocols, and the conclusions a fingerprint examiner can reach.  
**0.037 to 0.741 Unit**  
**2 to 40 Lecture hours**  
**2 to 40 Lab hours**

**PAC 4382**  
**Death Investigation**

*Prerequisite: PAC 4328*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; AJ 041; AJ 208; AJ 275; PAC 4317*

This course is designed for students interested in a career in law enforcement and/or forensics. The course will present an advanced overview of techniques that are used and issues that surface during the initial investigation of the death of a human being. The course will also address the role of the Coroner's office and their ability to scientifically investigate the cause and manner of any sudden, suspicious, or violent death.  
**0.5 Unit**  
**24 Lecture hours**

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## POLITICAL SCIENCE

### Division of Behavioral & Social Sciences

**POLS 110**  
**Government of the United States**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: POLS 110 or POLS 110H)*  
This course surveys and analyzes the origins, principles, institutions, policies, and politics of U.S. National and California State Governments, including their constitutions. Emphasis is placed on the rights and responsibilities of citizens, and an understanding of the political processes and issues involved in the workings of government. This course fulfills the American Institutions requirement for the Associate Degree. It also is suitable for students wishing to expand their knowledge of local, state and national governments.  
**3 Units**  
**54 Lecture hours**

**POLS 110H**  
**Government of the United States**

*Prerequisite: ENGL 101 with a "C" or better*  
*Advisory: READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: POLS 110 or POLS 110H)*  
This course surveys and analyzes the origins, principles, institutions, policies, and politics of U.S. National and California State Governments, including their constitutions. Emphasis is placed on the rights and responsibilities of citizens, and an understanding of the political processes and issues involved in the workings of government. This course fulfills the American Institutions requirement for the Associate Degree. It also is suitable for students wishing to expand their knowledge of local, state and national governments. This course is intended for students eligible for the Honors Program.  
**3 Units**  
**54 Lecture hours**

**POLS 120**  
**California State and Local Governments**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment*  
*Transfers to: CSU*

This course is an introduction to the structure, functions, and politics of California governments including state, county, municipal and special districts.

**3 Units**  
**54 Lecture hours**

**POLS 128**  
**Introduction to Political Philosophy**

*Advisory: ENGL 101 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is for students interested in the relationship between political systems and philosophy. It is especially relevant for students interested in political science, philosophy and law. This course introduces the history and development of political thought, and will consider the justification of the State, Libertarianism, Socialism, Communism, as well as conceptions of rights and distributions of goods.

**3 Units**  
**54 Lecture hours**

**POLS 130**  
**Comparative Government**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines the political systems of selected industrial democracies, dictatorships, and governments of the developing world. Emphasis is placed on the institutional development and political processes and cultures within these countries. This course features an examination of current political problems and a comparison of such differing ideologies as Marxism, democracy, theocracy, and totalitarianism. This course is intended for the student interested in the study of foreign governments and for those who wish to major in political science.

**3 Units**  
**54 Lecture hours**

**POLS 135**  
**International Political Economy**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This is an introductory course designed for students interested in economics and political science, as well as anyone interested in the global interconnectedness of the world economy. The course focuses on the relations between the political and economic systems within the global economy. The course covers the impact of political decisions on world economies and international

organizations. Further emphasis is placed on a comparison-contrast of various national economies. Geographic areas of concern include Africa, Europe, the Pacific Rim, the Middle East, Latin America, Russia, China, and the United States. The course is cross-listed as Economics 135 and Political Science 135. Credit is given in either area, not both.

**3 Units**  
**54 Lecture hours**

**POLS 140**  
**International Relations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines the structure and operation of the international system. Emphasis is placed on the nature and sources of conflict and cooperation, issues of war and peace among states in the international system, and international economic development. The impact of nation-states, international organizations, and non-governmental actors are all examined. This course is suitable for students who wish to expand their knowledge of international politics and for those who wish to major in political science or international relations.

**3 Units**  
**54 Lecture hours**

**POLS 150**  
**Chicano Politics (Same as CHST 150)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course examines U.S. history and political issues relevant to the Chicano/Latino community, provides an overview of Chicano/Latino demographics in the U.S, examines Chicano/Latino political activism and the rise of Chicano/Latino political leadership. This is an entry level course serving as an elective for both the Political Science and Chicano Studies majors.

**3 Units**  
**54 Lecture hours**

**POLS 290**  
**Cooperative Work Experience/  
Internship for Political Science Related  
Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in governmental positions under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in an area of local, county, state, or federal government and will meet performance objectives related to instruc-

tion that are above and beyond the conditions of regular employment. This course is intended for students whose intended job is related to the field of government and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**POLS 299**  
**Directed Study: Political Science**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## PSYCHOLOGY

### Division of Behavioral & Social Sciences

**PSY 101**  
**Introductory Psychology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PSY 101 or PSY 101H)*

This course is designed as a general introduction to psychology for psychology majors, those with an interest in psychology, or anyone with a desire to further their understanding of human behavior. It provides an overview of the field of psychology, introducing students to the research methods used to advance the science of psychology and the various areas that comprise this diverse discipline. Research and theories are presented, discussed, and evaluated. Topics covered include biological psychology, sensation and perception, lifespan development, learning, memory, motivation and emotion, cognition, personality, psychopathology and social psychology.

**3 Units**

**54 Lecture hours**

### **PSY 101H**

#### **Introductory Psychology**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PSY 101 or PSY 101H)*

This course is designed as a general introduction to psychology for psychology majors, those with an interest in psychology, or anyone with a desire to further their understanding of human behavior. It provides an overview of the field of psychology, introducing students to the research methods used to advance the science of psychology and the various areas that comprise this diverse discipline. Research and theories are presented, discussed, and evaluated. Topics covered include biological psychology, sensation and perception, lifespan development, learning, memory, motivation and emotion, cognition, personality, psychopathology and social psychology. This course is intended for those who meet Honors Program requirements.

**3 Units**

**54 Lecture hours**

### **PSY 112**

#### **Lifespan Development**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PSY 112 or CD 106)*

This course provides an overview of human psychological development across the lifespan. The physical, cognitive, social, and emotional changes that occur from the prenatal period through old age are addressed. In addition, current research findings and their applicability to ongoing developmental problems are explored. This course is appropriate for the student seeking to develop a

better understanding of the development gains and losses that occur throughout our lives.

**3 Units**

**54 Lecture hours**

### **PSY 114**

#### **Introduction to Abnormal Psychology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course provides an introduction to the study of abnormal behavior for psychology majors, those with an interest in abnormal psychology, or anyone with a desire to further their understanding of abnormality. The classification, assessment and treatment of psychological disorders will be explored. Students will not only develop an understanding of the etiology and diagnosis of such disorders, as based upon DSM-IV-TR criteria, but develop an appreciation of the cultural, historical and theoretical influences that affect the definitions and treatment of abnormal behavior.

**3 Units**

**54 Lecture hours**

### **PSY 116**

#### **Introduction to Cross-Cultural Psychology**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course provides an introduction to the literature of Cross-Cultural Psychology. This course is organized around understanding the historical events leading to research in cross-cultural psychology, and the efforts to understand human behavior within an international and multicultural context. From this context, a variety of psychological phenomena will be studied including consciousness, learning and memory, life-span development, perception, cognition, emotion, social psychology, and stress and coping.

**3 Units**

**54 Lecture hours**

### **PSY 121**

#### **Drugs, Society, and Behavior**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is for the student who seeks a basic understanding of the effects of drugs of abuse and an in-depth consideration of the societal aspects of psychoactive drugs. It is designed for those students interested in furthering their understanding of psychoactive drugs and those interested in working with populations recovering from or at risk for drug problems. Current and historical uses of and attitudes towards drugs will be addressed, as well as drug use

disorders, drug legislation, and treatment options. Societal and cultural differences will also be noted.

**3 Units**

**54 Lecture hours**

### **PSY 123**

#### **Drug Education and Prevention**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for students interested in furthering their understanding of substance dependence and those interested in working with populations recovering from or at risk for such problems. It addresses the history, theories, models, and approaches to substance abuse education and prevention. In addition to an academic look at drug abuse, students will also explore and examine their own values and beliefs about substance use and misuse. The impact of public policy, the media, and drug education programs on drug use will all be considered.

**3 Units**

**54 Lecture hours**

### **PSY 127**

#### **Introduction to the Physiological Effects of Drugs of Abuse**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for students interested in furthering their understanding of psychoactive drugs and those interested in working with populations recovering from or at risk for drug problems. It provides an examination of the pharmacological actions of drugs of abuse and how this relates to the physiological, as well as the behavioral, effects of such drugs. The properties of drugs that increase the likelihood of the development of dependence will be emphasized.

**3 Units**

**54 Lecture hours**

### **PSY 133**

#### **Personal and Social Adjustment**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student interested in furthering their general knowledge of themselves and the more applied areas of psychology. An overview of the principles underlying mental health and well-being is provided with the goal of initiating a process of self-discovery through readings and activities designed to explore existing beliefs, biases, and expectations. Topics addressed include personality theories and therapy, life span development, stress and stressors, forms of adaptive and maladaptive behavior, resources for

effective communication, interpersonal relationships including friendship and marriage, sexuality, work and the development of personal values and a philosophy of life.

**3 Units**

**54 Lecture hours**

#### **PSY 170**

##### **Introduction to Learning and Memory**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course details the background and research that led to the identification of the different types of learning and memory. Students will explore topics in the field of learning and memory including but not limited to classical conditioning, operant conditioning, instrumental conditioning, short-term and long-term memory, forgetting, and models of learning and memory. This course is beneficial for students that are Psychology majors, students looking to transfer as a Psychology major and students that are interested in learning about the field of learning and memory.

**3 Units**

**54 Lecture hours**

#### **PSY 180**

##### **Positive Psychology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course focuses on the research, theories, and ideas surrounding, promoting, and maintaining well-being, good health, and happiness. Students will explore topics in the field of positive psychology including but not limited to wellness, optimism, flow, happiness, and positive thinking. This course is beneficial for students that are Psychology majors, students looking to transfer as a Psychology majors and students that are interested in learning about positive psychology.

**3 Units**

**54 Lecture hours**

#### **PSY 190**

##### **Statistics for the Behavioral Sciences**

*Prerequisite: MATH 070 or MATH 070D with a grade of "C" or better or appropriate assessment*

*Advisory: ENGL 101 and READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course provides an overview of the types of statistics that are important in the behavioral sciences. The main focus of this course is on hypothesis testing and the statistics that are used to analyze it. Students will learn to present and interpret experimental data from the behavioral sciences. Topics covered include basic probability, measures of central tendency, measures of variance, sampling, and inferential statistics. This

course is designed for students majoring in psychology, sociology, political science, and anthropology.

**4 Units**

**72 Lecture hours**

#### **PSY 200**

##### **Research Methods in Psychology**

*Prerequisite: PSY 101*

*Prerequisite/Corequisite: MATH 130 or PSY 190*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course provides an introduction to the philosophy of science and the examination of the hypothetical deductive methods and their relationship to theory. Topics include: the nature of experimental research and design, experimental and non-experimental research-including group and single-subject designs, literature review, research ethics, collection and analysis of data, and writing APA-style reports. Collection, handling, and analysis of original empirical data, during class and outside of class, in both experimental and non-experimental designs, are an integral component of the course. The course is designed for students intending to pursue a degree in psychology.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

#### **PSY 210**

##### **Biological Psychology**

*Prerequisite: PSY 101*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PSY 210 or PSY 210H)*

This course is designed for the student who has an interest in understanding the biological processes that underlie human behavior. The biological basis of normal and abnormal behavior, including sensory systems, brain and behavior relationships, and underlying neurochemical processes will be addressed. The extent to which biological processes interact with environmental influences to determine behavior will be explored.

**3 Units**

**54 Lecture hours**

#### **PSY 210H**

##### **Biological Psychology**

*Prerequisite: PSY 101 and ENGL 101 with a "C" or better. Enrollment is restricted to those who meet Honors Program requirements (minimum GPA of 3.0)*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: PSY 210 or PSY 210H)*

This course is designed for the stu-

dent who has an interest in understanding the biological processes that underlie human behavior. The biological basis of normal and abnormal behavior, including sensory systems, brain and behavior relationships, and underlying neurochemical processes will be addressed. The extent to which biological processes interact with environmental influences to determine behavior will be explored. This course is intended for students eligible for the Honors Program.

**3 Units**

**54 Lecture hours**

#### **PSY 299**

##### **Directed Study: Psychology**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## **RADIO**

### **Division of Communications & Languages**

#### **RDIO 104**

##### **Introduction to Broadcasting**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is an introduction into the field of broadcasting in a survey form covering the vast areas of broadcasting throughout the world. It is a

broad survey of the history, theory, and operation of radio and television broadcasting in the United States, including legal and social aspects, networks, programming, production, sales and advertising, and station personnel. At least one field trip to a radio or television studio will be scheduled each semester.

**3 Units**  
**54 Lecture hours**

**RDIO 136**  
**Radio Production**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is intended as an introduction for students wanting to learn the production and management techniques in radio broadcasting. Students will be shown basic techniques for writing and producing the commercial and public service type announcements. Students will be shown through lecture, demonstration, and taped examples the proper announcing and on-air presentation techniques. Students will make demonstration tapes and air checks of examples of their work for submission to the instructor and the class for evaluation. Selected students will have an opportunity to air their programs over the campus radio station KRHC.

**4 Units**  
**54 Lecture hours**  
**72 Lab hours**

**RDIO 236**  
**Advanced Radio Production**

*Prerequisite: RDIO 136 with a grade of "C" or better*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is intended as an advanced study for students wanting to learn production and management techniques utilized in radio broadcasting. Students will be shown proper announcing and on-air presentation techniques through lecture, demonstration, and taped examples. Students will have an opportunity to air their programs over the campus Internet radio station KRHC.

**4 Units**  
**36 Lecture hours**  
**108 Lab hours**

**RDIO 290**  
**Cooperative Work Experience/  
Internship for Radio Related Fields**

*Prerequisite: JOUR 147*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in radio related fields under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in an area of radio related fields and will meet performance objectives

related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose intended job is related to the field of radio and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**  
*1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

**RDIO 299**  
**Directed Study: Radio**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## READING

### Division of Communications & Languages

**READ 012**  
**Learning Strategies**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 021 or appropriate assessment*

This course is designed for students entering college who need to develop their skills as learners. Students will build and acquire study techniques in the areas of note taking, test taking, text reading, memorizing, time planning and communicating.

The emphasis of this class will be on learning new techniques and then applying them to classes and work situations. This is a non-degree credit course and is offered on a pass/no pass basis.

**1.5 Units**  
**27 Lecture hours**

**READ 020**  
**Introductory Reading**

This is an introductory course for students with beginning reading skills. Students will learn meanings and the pronunciation of new words. In addition, students will practice basic comprehension skills through readings dealing with the workplace, college, and everyday life. This course is appropriate for native and second language learners. This is a non-degree applicable course offered on a pass/no pass basis.

**3 Units**  
**54 Lecture hours**

**READ 021**  
**Basic Reading**

*Prerequisite: Appropriate placement through the Rio Hondo Assessment process*

*Corequisite: READ 021L*

This course is designed for students who want to improve their reading skills in order to succeed in other college classes. Students will learn how to read and understand short works of fiction and nonfiction as well as key vocabulary words associated with college and everyday life through context clues, word parts, and dictionary usage. Students will also learn to recognize transitions, main ideas and supporting details.

This is a non-degree applicable course and is offered on a pass/no pass basis. All students are required to concurrently enroll in the Reading Lab, READ 021L.

**3 Units**  
**54 Lecture hours**

**READ 021L**  
**Reading Lab**

*Prerequisite: Appropriate placement through the Rio Hondo Assessment process*

*Corequisite: READ 021*

This course is a skills class designed to assist students in improving reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks intended to complement the activities of their reading course. All READ 021 students must enroll. This is a non-degree applicable course offered on a pass/no pass basis.

**0.5 Unit**  
**27 Lab hours**

**READ 022**  
**Intermediate Reading Skills**

*Prerequisite: READ 021 or appropriate assessment*

*Corequisite: READ 022L*

This course is designed for students who want to improve their reading skills in order to succeed in other college classes. Students will develop comprehension and vocabulary

through the reading of material drawn from popular works, textbooks, magazines, and newspapers. Areas addressed include determining main ideas, recognizing supporting details, identifying author's organization, and making inferences. This is a non-degree applicable course and is offered on a pass/no pass basis. All students are required to concurrently enroll in Reading Lab, Reading 022L.  
**3 Units**  
**54 Lecture hours**

**READ 022L**  
**Reading Lab**

*Prerequisite: READ 021 or appropriate assessment*

*Corequisite: READ 022*

This course is a skills class designed to assist students in improving reading comprehension and vocabulary through individually prescribed lab work. Students will complete reading tasks intended to complement the activities of their reading course. All READ 022 students must enroll. This is a non-degree applicable course offered on a pass/no pass basis.

**0.5 Unit**  
**27 Lab hours**

**READ 023**  
**Reading College Textbooks**

*Prerequisite: READ 022 or appropriate assessment*

This is a course designed for students who need to improve their reading competencies in order to succeed in other college classes. Areas of emphasis will include reading strategies essential in such academic areas as social sciences, science, technology, business and humanities. The course also introduces academic vocabulary. This is a non-degree credit course and is offered on a pass / no-pass basis.

**3 Units**  
**54 Lecture hours**

**READ 101**  
**Critical Reading**

*Prerequisite: READ 023 or appropriate assessment*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment*

*Transfers to: CSU*

This course is designed to aid students in acquiring critical reading and thinking skills across the disciplines. Emphasis is placed on the ability to analyze and evaluate material by establishing thesis and support as well as by analyzing elements of argumentation. The course also focuses on vocabulary and the effects of language on the reader.

**3 Units**  
**54 Lecture hours**

**READ 134**  
**Effective Study Methods**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course is designed for students who want to acquire study strategies for college success and lifelong

learning. The class topics include student motivation techniques, time management methods, book marking approaches, memory processes, lecture note-taking styles, test preparation procedures, and test-taking strategies. In addition, students will explore more effective class-related communications and creative thinking styles while using college, internet, and community resources. By learning, practicing, and implementing the course theories and strategies, students will succeed in their education, careers, and communities.

**3 Units**  
**54 Lecture hours**

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## REGISTERED DENTAL ASSISTING

Division of Health Sciences  
& Nursing

**RDA 051**

**Registered Dental Assisting I**

*Prerequisite: Acceptance into Registered Dental Program*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This is part one of a two-semester Registered Dental Assisting competency based course. This course includes patient care experience in a fully equipped facility. Students who successfully complete the curriculum are qualified to take the California Dental Board examination leading to licensure as a Registered Dental Assistant. At completion of the program, the student will be certified by the state of California to take dental x-rays. Students who are interested in the dental field are encouraged to take this course.

**12 Units**  
**151 Lecture hours**  
**200 Lab hours**

**RDA 052**

**Registered Dental Assisting II**

*Prerequisite: Enrollment in the RDA Program and successful completion of RDA 051 with a grade of "C" or better*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment; MATH 030 or appropriate assessment*

This is part two of a two-semester Registered Dental Assisting competency based program. This course includes patient care experiences in a fully equipped facility and a 160 hour preceptor experience. Students who successfully complete the curriculum are qualified to take the California Dental Board examination leading to licensure as a registered Dental Assistant. At the completion of the program, the student will be

certified by the state of California to perform coronal polishing and place pit and fissure sealants. Student who are interested in the dental field are encouraged to take this course.

**12 Units**  
**100 Lecture hours**  
**356 Lab hours**

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## SOCIOLOGY

Division of Behavioral  
& Social Sciences

**SOC 101**

**Introduction to Sociology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SOC 101 or SOC 101H)*

This course is designed for those with an interest in Sociology, or anyone with a desire to further their understanding of human group behavior and the organization of society. The student, using several theoretical points of view, will study and analyze: (1) the organization of social life; (2) problems of inequality - of age, sex, race and ethnicity, social class and life style; (3) the basic social institutions: family, religion, and economics; and (4) global issues of technology, social movements and social change.

**3 Units**  
**54 Lecture hours**

**SOC 101H**

**Introduction to Sociology**

*Prerequisite: Enrollment is restricted to those who meet Honors Program requirements (minimum GPA of 3.0) and completion of ENGL 101 with a "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SOC 101 or SOC 101H)*

This course is designed for those with an interest in Sociology, or anyone with a desire to further their understanding of human group behavior and the organization of society. The student, using several theoretical points of view, will study and analyze: (1) the organization of social life; (2) problems of inequality - of age, sex, race and ethnicity, social class and life style; (3) the basic social institutions: family, education, politics, economics, and religion; and (4) global issues of population, technology, social movements and social change. This course is intended for students eligible for the Honors Program.

**3 Units**  
**54 Lecture hours**

**SOC 102****Major Social Problems**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed to provide students with an understanding of the definition, development, reduction and elimination of major social problems in contemporary society. Topics addressed include problems of mental and physical health including addictions, crime and violence, social inequality, terrorism and war, as well as technology and the environment. Various social theories and relevant empirical research are critically examined throughout the course.

**3 Units****54 Lecture hours****SOC 105****Introduction to Human Sexuality**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students interested in the social scientific study of human sexuality. The course provides students with knowledge about the processes and variation in sexual functions, reproduction, intimate relationships, sexual and gender role development and sexual activities. Numerous factors involved in human sexuality are explored, emphasizing sexuality as a form of human interaction. The social, cultural, and historical contexts of human sexuality will be critically analyzed.

**3 Units****54 Lecture hours****SOC 110****Human Sexuality from a Cross-Cultural Perspective (Same as ANTH 110)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed to provide the student who has an interest in human sexuality with an introduction to this subject as a form of culturally-influenced social interaction. Topics addressed include historical views of sexuality, gender identity, and the impact of cultural change on sexual interest and activity. A social scientific analysis of various aspects of human sexual behavior will be used to examine sexuality as a form of social interaction in a cultural context. Various social theories and relevant empirical research are critically analyzed from both a Western and non-Western perspective.

**3 Units****54 Lecture hours****SOC 114****Marriage, Family and Intimate Relationships**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for the student interested in examining, from a sociological perspective, issues such as marriage, family, and emerging alternative life styles which constitute the reality of life today. The course explores love, sexuality, mate selection, and engagement preceding traditional marriage and family patterns, extra-marital and non-marital unions, singles, and future trends in intimate relationship styles.

**3 Units****54 Lecture hours****SOC 116****Introduction to Race and Ethnic Relations**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students interested in understanding the complexities of multi-ethnic, multi-racial societies. This course presents an overview of the structure and character of racial and ethnic relations in the United States and abroad. Students will gain knowledge of the treatment and experiences of a variety of racial and ethnic cohorts and gain insight into the complex social features of inter-group contact.

**3 Units****54 Lecture hours****SOC 120****Perspectives of Sex & Gender**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

In this course we will explore how gender shapes our lives and the world around us. Using a sociological perspective, we will examine gender as a social construction rather than a simple biological difference. Topics to be covered will include, but not encompass, cultural ideas of gender, gender and the economy, politics, the media, families, and education. This course is designed for men and women who want to learn more about the social connections of gender and how the importance of gender differences are strengthened in our society today.

**3 Units****54 Lecture hours****SOC 127****Introduction to Criminology**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for students

interested in the subject of criminology. The scientific analysis of the nature, extent, and causes of violations of societal rules of behavior that are formally defined as crime and delinquency will be emphasized. The course includes an analysis of the development of criminal law and the administration of criminal justice, the patterns of criminality and delinquency, the impact of crime on social change, and the labeling, identification, characteristics, and treatment of criminals and delinquents.

**3 Units****54 Lecture hours****SOC 148****La Chicana: The Contemporary Mexican-American Female (Same as CHST 148)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

The introductory course will examine the ethnic identity formation of the Mexican-American woman. The students will analyze the employment, education, religious, family, historical and cultural influences present in the lives of Mexican-American females. This course is appropriate for students interested in furthering their understanding of the social construction of the Mexican-American woman.

**3 Units****54 Lecture hours****SOC 299****Directed Study: Sociology**

*Transfers to: UC, CSU*

Independent Study / Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and / or appropriate projects. To enroll in an independent study / directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies / Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies / Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study

courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## SPANISH

### Division of Communications & Languages

#### SPAN 101 Spanish I

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 130 and SPAN 131)*

This course is an introduction to the essentials of Spanish language: reading, listening, speaking, and writing skills. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. This class is designed for those students who do not have a Spanish language background who wish to learn to speak Spanish or who seek a degree in the Spanish language.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

#### SPAN 102 Spanish II

*Prerequisite: Successful completion of SPAN 101 or two years of high school Spanish*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 130 and SPAN 131)*

This course is a continuation of the study of the essentials of Spanish language: reading, listening, speaking, and writing skills. The skills learned in Spanish 101 will be reviewed. The class will increase vocabulary, grammar, and cultural knowledge to improve on the reading, listening, speaking and writing skills presented in Span 101. In this course the study of verb tenses and constructions is completed. Various facets of Spanish-speaking cultures will be analyzed via cross-cultural comparisons. In addition to classroom discussion, students receive intensive individualized oral-aural practice in the language laboratory via interactive websites, audio CDs, video programs, and CD ROMs. This class is designed for those students who do not have a Spanish language background

who wish to learn to speak Spanish or who seek a degree in the Spanish language.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

#### SPAN 130

##### Spanish for the Heritage Speakers I

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 130 and SPAN 131)*

This course is designed to improve the language skills of students with a Spanish language background. Emphasis will be placed on the improvement of reading and writing skills. Aspects of culture, civilization, and literature from the Spanish-speaking countries will be included.

**3 Units**  
**54 Lecture hours**

#### SPAN 131

##### Spanish for Heritage Speakers II

*Prerequisite: SPAN 130 with a grade of "C" or better*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following sequences of courses: SPAN 101 and SPAN 102 or SPAN 130 and SPAN 131)*

This course is a continuation of SPAN 130. It is designed to further improve the language skills of students with a Spanish language background. Emphasis will continue to be placed on the improvement of reading and writing skills, focusing especially on accents and spelling. Aspects of the culture and civilization of Spanish-speakers will be included in the readings of the literature of Spanish-speaking countries. This course is intended for students who are native speakers of Spanish.

**3 Units**  
**54 Lecture hours**

#### SPAN 201

##### Spanish III

*Prerequisite: SPAN 102 or SPAN 131 with a "C" or better, or three years of high school Spanish*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPAN 201 or SPAN 201H)*

This is an intermediate level course in which Spanish grammar is reviewed. It also includes intensive classroom practice in conversation and composition. In addition to classroom instruction, students receive intensive, individualized oral-aural practice in the language laboratory in which websites, video programs, audio CDs, and CD ROMs are used. Many aspects of Spanish culture are introduced in short stories by Latin American and Spanish authors.

Students strengthen their communication and writing skills by analyzing these stories in Spanish. This course is designed/intended for students who wish to broaden their knowledge in Spanish as well as for those interested in pursuing a degree in the Spanish language.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

#### SPAN 201H

##### Spanish III

*Prerequisite: ENGL 101 with a grade of "C" or better and SPAN 102 or SPAN 131 with a grade of "C" or better, or three years of high school Spanish*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPAN 201 or SPAN 201H)*

This is an intermediate level course in which Spanish grammar is reviewed. It also includes intensive classroom practice in conversation and composition. In addition to classroom instruction, students receive intensive individualized oral-aural practice in the language laboratory in which websites, video programs, audio CDs, and CD ROMs are used. Many aspects of Spanish culture are introduced in short stories by Latin American and Spanish authors. Students strengthen their communication and writing skills by analyzing these stories in Spanish. This course is designed / intended for students who wish to broaden their knowledge in Spanish as well as for those interested in pursuing a degree in the Spanish language. This course is intended for students eligible for the Honors Program.

**4 Units**  
**72 Lecture hours**  
**18 Lab hours**

#### SPAN 202

##### Spanish IV

*Prerequisite: SPAN 201 or 201H with a grade of "C" or better or four years of high school Spanish*  
*Transfers to: UC, CSU*

Spanish 202 is an intermediate level course designed to further improve the use of Spanish grammar, conversation, reading comprehension and composition. Various aspects of Spanish culture and literature are introduced through readings in the textbook and in supplementary readings. Students strengthen their communication and writing skills by analyzing literary selections that vary in style from simple journalist writing to highly original and complex literary works in Spanish. Students also receive intensive, oral-aural practice in the language laboratory in which websites, video programs, audio CDs, and CD ROMs are used. This course is designed /intended for students who wish to broaden their knowl-

edge of Spanish as well as for those interested in pursuing a degree in the Spanish language.

**4 Units**

**72 Lecture hours**

**18 Lab hours**

### **SPAN 299**

#### **Directed Study: Spanish**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## **SPEECH**

### **Division of Communications & Languages**

#### **SPCH 100**

##### **Interpersonal Communication**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

Interpersonal Communication is an introductory course focusing on interactions between two people. Designed to provide students with greater understanding of communication in everyday activities, the course focuses on self-discovery and strengthening the self-image; discovering and understanding the factors that influence communication behavior; and the establishment and maintenance of meaningful relationships in professional and social settings. This course is designed for speech communication majors or

anyone with an interest in human communication.

**3 Units**

**54 Lecture hours**

#### **SPCH 101**

##### **Public Speaking**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPCH 101 or SPCH 102)*

This introductory course is designed to prepare students to be effective oral communicators in all aspects of public presentations including design and delivery of the public speech. The course is appropriate for all students interested in developing their public speaking knowledge and skills such as speech communication majors, future teachers, and future business leaders.

**3 Units**

**54 Lecture hours**

#### **SPCH 102**

##### **Fundamentals of Oral Communication**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPCH 101 or SPCH 102)*

This is a course designed for students who want a broad overview of communication. The principles of interpersonal communication, group communications, and public speaking will be addressed. The roles of interpersonal and group communication as they are used in everyday activities and in the workplace will be covered. Students will develop, organize, and deliver speeches for a variety of public audiences and occasions.

**3 Units**

**54 Lecture hours**

#### **SPCH 110**

##### **Forensics: Speech and Debate Team**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course trains students to participate in Rio Hondo's Forensic Speech Team and/or to participate in community speech activities. This course emphasizes speech writing and/or presentation in debates, limited preparation speeches, drama, poetry, prose, humorous, informative, and persuasive speaking genres. This course is appropriate for students specializing in areas involving public speaking such as law, political science, drama, and instruction. This course may be taken once for credit and repeated three times for credit.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **SPCH 111**

##### **Forensics: Debate Research and Practice**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course involves participation in Rio Hondo's Forensic Debate Team. Students research, structure, and present debate cases. Students in this course will improve their ability to debate at intercollegiate debate tournaments. Emphasis is placed on successful participation in National Parliamentary Debate Association (NPDA) sanctioned tournaments. This course is recommended for students preparing for careers in law, political science, or community advocacy. This course may be taken once and repeated three times for credit.

**2 Units**

**108 Lab hours**

#### **SPCH 112**

##### **Forensics: Oral Interpretation**

###### **Laboratory**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This course is designed to train students in the analysis and performance of literature at speech events attended by the Forensic Speech Team. Students develop skills to interpret and perform literature ranging from the play, screenplay, short story, novel, and poetry. Students gain an understanding of character and scene analysis as it applies to an oral interpretation performance. This course is recommended for students specializing in communication, performance studies, and creative literature.

This course may be taken once and repeated three times for credit.

**2 Units**

**108 Lab hours**

#### **SPCH 130**

##### **Oral Interpretation**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This communication course focuses on the oral performance of various forms of literature, such as poetry, prose, and drama. The skills needed for making such public performances will be addressed and student knowledge of the various forms of literature will be enhanced. Emphasis is placed on creating the essence of characters in a text through facial, vocal, and kinetic methods. This course is appropriate for speech majors or anyone interested in public performance and literature.

**3 Units**

**54 Lecture hours**

**SPCH 132**  
**Readers Theatre**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This is a creative communication course focusing on group presentations of literature. Students will perform prose, drama, and/or poetry in groups so that a communicative message emerges and fosters imaginative responses in the minds of an audience. Emphasis is placed on the fusion between rhetoric, interpretation and acting. Readers Theatre is designed for Speech Communication majors and those interested in literature and performance.

**3 Units**  
**54 Lecture hours**

**SPCH 140**  
**Argumentation and Debate**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPCH 140 or SPCH 240)*

This course is an introduction to the principles and techniques of argumentation and debate. Effective methods of research, critical analysis, reasoning, refutation, and listening are stressed. Through debate participation and analysis, students will gain the knowledge and skills to advocate and refute argumentative positions. This course is particularly appropriate for students anticipating entering occupations where argumentation, negotiation, and issue-analysis are likely to occur.

**3 Units**  
**54 Lecture hours**

**SPCH 201**  
**Advanced Public Speaking**

*Prerequisite: SPCH 101 with a grade of "C" or better*  
*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: UC, CSU*

Advanced public speaking provides an introduction to the skill necessary for publicly influencing others. A major goal of the course is to develop the skills needed to engage in ethical persuasion and public speaking in general. Emphasis is placed on the historical origins of rhetorical communication and how it relates to current day situations. Students will explore the five canons of rhetoric and apply them to creating and delivering informative and persuasive presentations. This course is designed for students who are interested in refining the skills used by successful public speakers.

**3 Units**  
**54 Lecture hours**

**SPCH 240**  
**Argumentation and Discussion**

*Prerequisite: SPCH 140 with a grade of "C" or better*  
*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: SPCH 140 or SPCH 240)*

This course gives the student expanded practice and theory in argumentation. Students further develop their argumentation knowledge and skills through debate participation, observation, and discussion. This course is particularly appropriate for students anticipating entering occupations involving extensive argumentation and deliberation such as law, communication, negotiation, and any area where argumentation and debate occur frequently.

**3 Units**  
**54 Lecture hours**

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## TECHNICAL EDUCATION

### Division of Career & Technical Education

**TCED 044**  
**OSHA Workplace Safety**

*Advisory: READ 023 or appropriate assessment*

This course is intended for them individual who needs an overview and/or certification of both the California and Federal OSHA Safety Regulations for the General Industry Workplace. This course will cover a detailed overview of the rules and regulations, and discuss fire protection and prevention, material handling/storage/use and disposal, hand and power tools, welding and cutting, electrical safety, and fall protection. Upon completion of this course, (as well as passing the final exam), the student will receive a 10-hour OSHA Training Certificate of completion, which is good for life.

**1 Unit**  
**18 Lecture hours**

**TCED 045**  
**Survey of Technology**

*Advisory: READ 023 or appropriate assessment*

This course is an exploration of the various applied technologies pertinent to society today. Students will receive an introduction to auto technology, auto collision, drafting/architecture, geographical information systems, and fabrication. Lectures/demonstrations will focus on practical applications and career paths/job opportunities represented by the disciplines discussed. Students will be given hands-on opportunities to explore skills associated with the discipline. This course will provide

the student an introduction to five different technology disciplines to help him/her determine a potential career path and/or make them a more informed consumer of these technologies.

**3 Units**  
**45 Lecture hours**  
**27 Lab hours**

**TCED 046**  
**Industrial Design & Visual Communications**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

Intended for students interested in a career in Transportation Design or Product Design, this course introduces the student to the fundamentals of industrial design drawing and communication. Course begins with a lecture about possible career opportunities which exists within this profession. Students will learn to improve hand/eye coordination through repetition of given drawing task. Instruction emphasizes perfecting line, arc, circle and ellipse. Perspective drawing and shading are introduced. Culmination of the course will require the student to produce and present a solution to a given design problem and produce visual aids to describe product proposal and solution.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

**TCED 054**  
**OSHA Workplace Safety II**

*Advisory: READ 023 or appropriate assessment*

This course is intended for the individual who needs an intermediate-level overview and/or the number of hours required for certification of both the California and Federal OSHA Safety Regulations for the General Industry and Construction Workplace. The course will cover a detailed overview of the rules and regulations, fire protection and prevention, material handling/storage and disposal, hand and power tools, welding and cutting, electrical safety, fall protection, scaffolds, excavations, concrete and masonry construction, steel erection, demolition, cranes/hoists/elevators and conveyors, lockout/tagout procedures, industrial hygiene and emergency action plans. Powered Industrial Trucks will also be covered during the course, meeting the requirement for OSHA Standard 1910.178. Upon completion of this course, (as well as passing the final exam and the powered industrial trucks operator safety training), the student will receive a 30-hour OSHA Training Certificate of Completion, which is good for life, and a powered industrial truck Certified Operator Card, which is good for 3 years.

**4 Units**  
**72 Lecture hours**

**TCED 060****Elementary Metallurgy**

*Advisory: READ 022 or appropriate assessment*

This is an elementary course in the basic principles of metallurgy. It is designed for Welding and Machine Shop majors, but is suitable for all technology students. Emphasis is placed on terminology, numbering systems, methods of altering the properties of metals, and the effect on fabrication.

**2 Units**

**36 Lecture hours**

**TCED 070****Foundation Skills for Technical Trades I****Trades I**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is part one of a two-part series of courses designed to assist the student to become more effective and efficient in fundamental skills used in Technical Trades. The student will also gain an understanding of attitudes and behaviors that are beneficial to succeed in vocational settings and everyday life. Course content includes units of measure and measurement tools; converting fractions, decimals, and percentages; graphs and charts; perimeter, area, and volume; and personal finance. Emphasis will be placed on the practical application of these topics, and the use of a variety of hands-on classroom activities is included.

**3 Units**

**54 Lecture hours**

**TCED 080****Foundation Skills for Technical Trades II****Trades II**

*Prerequisite: TCED 070*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is part two of a two-part series of courses designed to assist the student to become more effective and efficient in fundamental skills used in Technical Trades. The student will also gain an understanding of attitudes and behaviors that are beneficial to succeed in vocational settings and everyday life. Course content includes solving technical problems using value analysis, graphs and charts, and personal growth. Emphasis will be placed on the practical application of these topics, and the use of a variety of hands-on classroom activities is included.

**3 Units**

**54 Lecture hours**

**TCED 090****Blueprint Reading for Manufacturing Drawings**

*Advisory: READ 022 or appropriate assessment*

This course presents an introduction to the use of blueprints as used in industrial applications. Principles

of reading drawings, specifications, projection principles, working drawings, details, assemblies and pictorial representation are discussed. The course is helpful for apprentices and employees in all areas of technology including planning, purchasing, manufacturing, machine trades, welding, future engineers, and inspection.

**2 Units**

**36 Lecture hours**

**18 Lab hours**

**TCED 299****Directed Study in Technical Education**

*Transfers to: UC, CSU*

Independent Study /Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals.

Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

2nd assistant director, lighting director, gaffer, camera operator, boom operator, and editor. Emphasis will be placed on defining the content, structure, and style of the production. This course may be of interest to students interested in both film and television production.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**TV 137****Introduction to Studio/Field Multi-Camera Production (EFP)**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This is a basic course in multi-camera television production. Topics will include the theory of NTSC and ATV (HDTV) television system operation; camera set-up and handling; live video mixing, layering and recording; video text and graphics; and audio and lighting fundamentals. Students crew all positions, including writer, producer, director, 1st assistant director, 2nd director, lighting director, floor manager, camera operator, technical director (video switcher), audio engineer, recording engineer, and graphics operator. Emphasis is on defining structure, style, and content of film and television production. This course may be of interest to students interested in film and television production.

**3 Units**

**36 Lecture hours**

**90 Lab hours**

**TV 138****Video Editing Lecture**

*Prerequisite/Corequisite: TV 137*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: CSU*

This is a course in the history and techniques of motion picture and television image editing. Students will view, discuss, and evaluate the evolution of the art, ranging from the earliest motion pictures to current video commercials. Emphasis is on defining structure, style, and content of film and television editing. This course is intended for all students with an interest in film and television editing, and who have completed or are concurrently enrolled in an introductory television production course.

**3 Units**

**54 Lecture hours**

**TV 195****ENG/Single Camera Production Lecture**

*Advisory: TV 137 with a grade of "C" or better*

*Transfers: CSU*

This is a basic course in television production techniques. This course will instruct the student in lighting, camera, audio and field acquisition techniques involved in dramatic,

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## TELEVISION

**Division of Arts & Cultural Programs****TV 135****Creative Digital Video**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This is a basic course in film-style production techniques for drama and music videos. Topics will include creating a story treatment, script writing, story boarding, camera handling, lighting, audio, and simple editing. Students will work in teams and crew all positions, including writer, producer, director, 1st assistant director,

news and documentary, single camera production.  
**2 Units**  
**36 Lecture hours**

#### TV 196

##### **ENG/Single Camera Production Lab** *Advisory: TV 137 with a grade of "C" or better*

*Transfers: CSU*

This is a basic course in television production techniques. This course will provide hands on training in scripting, lighting, camera, audio and field acquisition techniques involved in dramatic, news and documentary, single camera production.

**1 Unit**  
**54 Lab hours**

#### TV 199

##### **Television Internship**

*Prerequisite: TV 237 and TV 238 with a grade of "C" or better*

*Transfers to: CSU*

This course is designed to provide television students with on-the-job training in the profession. Students will meet with the instructor one hour each week to receive instruction in the specific area of internship. Students may be involved in any or all of the following professional areas: cable, industrial, education or broadcast television production - videography, audio, graphics, technical direction, editing, lighting, or directing.

**3 Units**  
**18 Lecture hours**  
**144 Lab hours**

#### TV 237

##### **Advanced Studio/Field Multi-Camera Production**

*Prerequisite: TV 137 with a grade of "C" or better*

*Transfers to: CSU*

This is a continuation of the basic course in multi-camera television production (TV 137), which expands the student's knowledge of production skills, including the following: NTSC and ATV (HDTV) television system signal systems and their operational characteristics; camera handling skills; live video mixing; advanced layering within the switcher; advanced video text (CG) operation; 2D animated graphics; and advanced audio and lighting techniques. Students crew all positions including writer, producer, director, 1st assistant, 2nd assistant director, lighting director, floor manager, camera operator, technical director (video switcher), audio engineer, video engineer, recording engineer, and graphics operator. This course is intended for all students with an interest in film and television editing, and who have completed an introductory television production course.

**3 Units**  
**36 Lecture hours**  
**90 Lab hours**

#### TV 238

##### **Video Editing Lab**

*Corequisite: TV 138*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers: CSU*

This is a course in the techniques of television image editing. Students engage in supervised laboratory experience in the fundamental characteristics of linear and non-linear editing systems, leading to competence in linear, AVID, and final cut PRO editing systems. Emphasis is on integrating structure, style, and content. This course is intended for students who wish to learn linear and nonlinear editing hardware and software.

**2 Units**  
**18 Lecture hours**  
**54 Lab hours**

#### TV 239

##### **Television Engineering**

*Prerequisite: Completion of TV 237 with a grade of "C" or better*

*Transfers: CSU*

This course is an introduction to broadcast television engineering requirements. The course will identify video signal characteristics, the function and uses of signal monitoring scopes, proper maintenance of camera optics, camera setup and alignment, videotape recorder maintenance and video system diagnostics, audio recorder maintenance and audio signal monitoring.

**3 Units**  
**36 Lecture hours**  
**90 Lab hours**

#### TV 290

##### **Cooperative Work Experience/ Internship for Television Production Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: CSU*

This course supports and reinforces on-the-job training in business, industrial, studio, broadcast, community and professional television organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of television production and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class.

*"Contact the CWE office regarding re-enrollment procedures"*

**Student Unpaid Internship:**  
*1 Unit/60 hours; 2 Units/120 hours;  
3 Units/180 hours; 4 Units/240 hours*

#### **Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours;  
3 Units/225 hours; 4 Units/300 hours*  
**1 to 4 Units**  
**3 Lecture hours**  
**60 to 300 hours**

#### TV 299

##### **Directed Study: Television**

*Transfers to: UC, CSU*

Independent Study/Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor. Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester. Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**  
**54 to 216 Lab hours**

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## THEATRE

### Division of Arts & Cultural Programs

#### THTR 101

##### **Theatre Arts Appreciation**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is an introduction and broad view of the entire field of theatre arts. The practice and theory of the following will be explored: costume, stage and lighting design, acting, directing, playwrighting, criticism, play structure, theatre architecture and producing. Included will be a brief historical overview. At least one field trip to an outstanding theatre production will be required. Recommended for all students. Required for Theatre Arts majors.

**3 Units**  
**54 Lecture hours**

**THTR 105****The History and Development of the Theatre**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: THTR 105 or THTR 105H)*

This course is designed for the student with an interest in history or theatre. It will cover humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The class explores the way societies' religious, political and social structures were presented and shared through their theatre. The class will investigate major plays, playwrights and historic theatrical techniques through lectures, discussion, field trips and films.

**3 Units**

**54 Lecture hours**

**THTR 105H****The History and Development of the Theatre**

*Prerequisite: ENGL 101 with a grade of "C" or better*

*Advisory: READ 023 or appropriate assessment*

*Transfers to: UC (credit limit\*), CSU (\*Students will receive credit from UC for only one of the following courses: THTR 105 or THTR 105H)*

This course is designed for the student with an interest in history of the theatre. It will cover humanity's relationship with theatre from primitive tribal cultures through today's large musicals and blockbuster hits. The class explores the way societies' religious, political and social structures were presented and shared through their theatre. The class will investigate major plays, playwrights and historic theatrical techniques through lectures, discussion, field trips and films. This course is designed for students eligible for the Honors program.

**3 Units**

**54 Lecture hours**

**THTR 110****Principles of Acting**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who is interested in acting and other areas of theatre, film and Television, whether as a profession or as a hobby. The class explores the theory, practice and techniques of acting. Emphasis is placed on theatre games and exercises culminating in the presentation of scenes from contemporary dramatic literature.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**THTR 111****Principles of Acting**

*Prerequisite: THTR 110*

*Transfers to: UC, CSU*

This course is for the student who wants to continue the exploration of theories and techniques used in preparation for the interpretation of drama through acting. The emphasis will be placed on deepening the understanding of the acting process through exercises, character analysis, monologues, and scenes.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**THTR 150****Theatre Crafts I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

The course is designed for the student who wishes to gain a basic understanding of the technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft terminology. The student will study the aesthetics and practical application principles of stage scenic, sound and lighting design. Students are assigned a specific crew responsibility that directly relates to a college theatre production.

**3 Units**

**18 Lecture hours**

**108 Lab hours**

**THTR 151****Theatre Crafts II**

*Prerequisite: THTR 150*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wishes to expand the skills and concepts acquired in Theatre Crafts I (THTR 150). Topics such as the technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft terminology are revisited and expanded upon. The student will additionally do extensive study of the aesthetics and practical application principles of set design, sound design, and lighting design. Students are assigned a specific crew duty such as light board operator, sound operator or stage crew lead with added responsibility that directly relates to a college theatre production.

**3 Units**

**18 Lecture hours**

**108 Lab hours**

**THTR 152****Theatre Crafts III**

*Prerequisite: THTR 151*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wishes to further expand the skills and concepts acquired in Theatre Crafts I and II. Technical phases of scene production including construction, painting, rigging, placement and manipulation of stage scenery, lighting equipment, sound equipment, properties and wardrobe as well as the organization and management of stage activity and stagecraft are examined in greater depth. The student will complete an in depth study of the theatrical design process by designing sets, props, lights and or sound for Rio Hondo theatrical productions. Students are assigned a specific crew lead with supervisory responsibility that directly relates to a college theatre production.

**3 Units**

**18 Lecture hours**

**108 Lab hours**

**THTR 153****Stage Lighting**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Prerequisite: THTR 101 or THTR 110 or THTR 150 or THTR 170 or THTR 171 or THTR 180*

*Transfers to: UC, CSU*

The course is designed for the student who wants to gain an understanding and appreciation of the roles light and lighting design play in the theatrical production. Students will gain understanding in lighting design theory, function and esthetics. Students will be able to hang, focus, color, cable and strike conventional and automated lighting fixtures as well as identify and select appropriate types of lighting fixtures, cables, control and power distribution equipment for a given purpose. Electrical and operational safety will receive special emphasis. Students will be able to operate lighting consoles at a proficient level.

**3 Units**

**18 Lecture hours**

**108 Lab hours**

**THTR 154****Stage Audio**

*Prerequisite: THTR 150*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*

*Transfers to: UC, CSU*

This course is designed for the student who wants to gain an understanding and appreciation of the roles audio and audio design play in the theatrical production. Students will gain an understanding in audio design, function and esthetics.

Students will be able to rig, cable, troubleshoot, strike and maintain analogue and digital audio equipment as well as identify and select appropriate types of microphones, cables, speakers and sound amplification equipment for a given purpose. Electrical and operational safety will receive special emphasis. Students will be able to operate audio mixing consoles at a proficient level.

**3 Units**  
**18 Lecture hours**  
**108 Lab hours**

**THTR 159**  
**Stage Crew Activity**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

The course is designed for the student to gain practical hands on technical experience working backstage on Arts and Cultural Programs approved public performances of theatrical, musical or dance productions and is taken in conjunction with Technical Theatre courses. The course may be taken once and repeated three times for credit.

**Variable Credit:**  
**0.5 Unit = 27 hours**  
**1.0 Unit = 54 hours**  
**1.5 Units = 81 hours**  
**2.0 Units = 108 hours**  
**2.5 Units = 135 hours**  
**3.0 Units = 162 hours**

**THTR 160**  
**Introductory Playwriting Screenwriting**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

This course includes the writing of a one act play (30-60pp) or the main portion of a full length play or screenplay; writing exercises; play and movie going; a final staged reading of finished scripts by student actors.

**3 Units**  
**54 Lecture hours**  
**18 Lab hours**

**THTR 161**  
**Playwriting Screenwriting for Production**

*Prerequisite: THTR 160*  
*Transfers to: CSU*

This course explores the crafts of playwriting and screenwriting for the professional market. Students will write, rewrite and polish works written with the intention of production. Students will read plays, screenplays, and teleplays that have been produced recently. Theatre-going and seeing newly released movies will be encouraged. Students will realistically appraise the marketability of their scripts through staged readings by student actors for an audience.

**3 Units**  
**54 Lecture hours**  
**18 Lab hours**

**THTR 170**  
**Theatre Rehearsal and Performance**

*Advisory: THTR 110*  
*Transfers to: UC, CSU*

This course is intended for the student who would like to develop their acting and/or technical skills through theatre production. Students are given an opportunity to be part of a theatre company in the organization of full-length and/or one-act plays. Students participate in theatre activity that may include acting, direction, production and management under the supervision and guidance of a faculty director. Productions will be presented for public performance and will be part of the Kennedy Center/American College Theatre Festival Competition.

**3 Units**  
**18 Lecture hours**  
**108 Lab hours**

**THTR 171**  
**Musical Theatre Rehearsal and Performance**

*Transfers to: UC, CSU*

This course provides study and laboratory exploration of all aspects of musical production. Students are given an opportunity to perform in one or more of the following areas: Music: instrumental or vocal; Theatre: acting or technical; Dance; Art: scenic design and/or scenic painting. Singers and instrumental musicians, dancers, actors and technicians explore the audition, preparation and presentational phases of the musical theatre production under the supervision and guidance of a faculty director. Productions will be presented for public performance. Enrollment is for the duration of the preparation and presentation phases of production.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**  
**59.4 Other hours**

**THTR 174**  
**Introduction to Stage Costume**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: UC, CSU*

This course is designed for the student who seeks to gain an understanding and appreciation of costume techniques used for the theatre and other entertainment industries. The student will gain the practical knowledge and experience necessary to work in a costume shop; an understanding of costume history; basic costume design including sketching; basic costume construction including alteration and sewing; costume design tools, materials and crafts; costume sourcing practices; and, backstage costume preparation and practices for productions. Students will be able to identify period costumes (garments and accessories), analyze the effectiveness of costumes

in a production, draft a pattern in order to sew/construct a garment, and source costumes needed for a production through vendors.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**THTR 180**  
**Touring Theatre Local I**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for the student who wishes to gain a basic understanding of the rigorous requirements of touring a theatre production, including acting, lighting, and maintaining props, costumes and sets. Students are assigned a specific responsibility that directly relates to a production that tours locally.

**2 to 4 Units**  
**18 to 36 Lecture hours**  
**54 to 108 Lab hours**

**THTR 181**  
**Touring Theatre Local II**

*Prerequisite: THTR 180*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment*  
*Transfers to: CSU*

This course is designed for the student who wishes to expand the skills and concepts acquired in THTR 180 regarding the rigorous requirements of touring a theatre production, including acting, directing, scenic design, management, lighting, construction and maintenance of props, costumes and sets. Students are assigned a specific responsibility that directly relates to a production that tours locally.

**2 to 4 Units**  
**18 to 36 Lecture hours**  
**54 to 108 Lab hours**

**THTR 210**  
**Acting Workshop: Devising**

*Prerequisite: THTR 110 or THTR 150 or THTR 153 or THTR 170 or THTR 171 or THTR 174*  
*Transfers to: UC, CSU*

This class is for the student who wants to create their own work, whether they are actors or non-actors. The class will study the history of devising (also known as collective creation), learn techniques of devising, and create, research, develop, rehearse and present a devised project. Some knowledge of traditional theatre is helpful for this class. Some semesters a public performance will be presented.

**3 Units**  
**36 Lecture hours**  
**54 Lab hours**

**THTR 215**  
**Acting: A Course in Auditioning and Cold Reading**

*Prerequisite:* THTR 110

*Transfers to:* CSU

This course is designed to help performers, at all levels of experience, prepare for audition. Areas covered will be: selection of material, analyzing the text, presentation of material, presentation of self for maximum effect, personal appearance, cold readings, relaxing for an audition; preparation of resumes and pictures. A repertoire of audition pieces will be developed throughout the semester. Whenever possible, guest lecturers will appear in the class and a simulated audition will aid the work.

**1 Unit**

**18 Lecture hours**

**36 Lab hours**

**THTR 230**  
**Principles of Directing**

*Prerequisite:* THTR 110

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for the student who wants to develop their ability to work with actors, interpret drama and to stage plays. It will cover the history and the techniques of the stage director. Emphasis is placed on class activities such as exercises and scenes. Career opportunities, stage management and assistant directing are also covered. It is a requirement for the Theatre Arts major.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**THTR 231**  
**Principles of Directing**

*Prerequisite:* THTR 230

*Advisory:* READ 023 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed for the student majoring in Theatre Arts. The class is a continuation of Theatre Arts 230. Techniques in casting, rehearsing, picturization, characterization, tempo and climax in play direction are covered. Students will direct a 10-minute play with other students.

**3 Units**

**36 Lecture hours**

**54 Lab hours**

**THTR 286**  
**Ballet Folklorico**

*Prerequisite:* See request for exception

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

*Transfers to:* UC, CSU

This course is designed to give a general knowledge of the regional dance styles of Mexico and its cultural aspects. Instruction will focus on the development of technique in Ballet Folklorico movements. Participation in public performance is required.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

**18 Other hours**

**THTR 290**  
**Cooperative Work Experience/  
Internship for Theatre Arts Related  
Fields**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

*Transfers to:* CSU

This course supports and reinforces on-the-job training in business, industrial, non-profit, studio, community and professional theatre organizations under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in their area of vocational interest and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of theatre arts and have completed or enrolled in the appropriate coursework. Instructor approval is required to remain in the class. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours;*

*3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship:**

*1 Unit/75 hours; 2 Units/150 hours;*

*3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**

**3 Lecture hours**

**60 to 300 hours**

**THTR 299**  
**Directed Study: Theatre**

*Transfers to:* UC, CSU

Independent Study /Directed Study is intended for students who have the ability to assume responsibility for independent work and to prepare written or oral reports and/or appropriate projects. To enroll in an independent study/directed study course, students must possess a 2.5 overall grade point average, a 3.0 grade point average in the discipline of study being requested, or receive an exception from the instructor.

Independent Studies/Directed Studies may be developed from any topic arising from or related to a course of study that will result in developing depth and breadth in that subject area. Students will be expected to meet on a regular basis with their faculty sponsor and submit a final report or project, and student progress shall be evaluated at regular intervals. Academic standards for Independent Studies/Directed Studies shall be the same as those for other courses. Units are awarded in accordance to Title V regulations with one unit of credit awarded for 54 hours of Directed Studies, six (6) hours of which must be with an instructor. The instructor is responsible for monitoring student progress through the semester.

Students may take directed study courses for a maximum of four (4) units within a discipline, and may not accumulate more than a total of twelve (12) units college wide.

**1 to 4 Units**

**54 to 216 Lab hours**

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## VOCABULARY

### Division of Communications & Languages

**VOCB 025**

**Intermediate Vocabulary**

*Advisory:* READ 021 or appropriate assessment

This course is intended for students who want to develop precollegiate-level reading, writing, and speaking vocabulary. Students will learn the meaning of new words commonly used in college textbooks and lectures, and they will use them in written and spoken sentences. Students will also gain knowledge of word roots to reinforce their understanding of words. This is a non-degree course and is offered on a pass/no pass basis.

**3 Units**

**54 Lecture hours**

**VOCB 101**

**Vocabulary & Etymology**

*Advisory:* ENGL 030 or ENLA 034 or appropriate assessment; READ 022 or appropriate assessment

*Transfers to:* CSU

This course offers the student an opportunity to develop a college level vocabulary. The course emphasizes an understanding of the etymology, definition, and usage of words so that students gain a comprehensive understanding of the meanings of words and how they are used. Additionally, students will study general and specialized terms used in courses across the curriculum. In order to internalize word meanings successfully, students will work in individual, small group, and whole class settings.

**3 Units**

**54 Lecture hours**

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## WELDING

### Division of Career & Technical Education

**WELD 040**

**Introduction to Welding Processes**

*Advisory:* ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment

This is an introductory class designed to familiarize the student with several welding processes that are currently used in the welding and metal fabrication industry. This course offers an overview and basic introduction to

the theory and practice of a variety of welding and metal cutting methods. This course will emphasize safety, theory, procedure, and practical skill development.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **WELD 045**

##### **Introduction to Electric Arc Welding**

*Advisory: READ 022 or appropriate assessment*

This course utilizes the basic principles and techniques of hot metal deposition and control with practice in electric arc welding. Emphasis is placed on safety, theory, procedure and development of fundamental skills.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **WELD 050**

##### **Semi-Automatic Welding Processes**

*Advisory: READ 023 or appropriate assessment; WELD 045 or equivalent work experience*

This is an intermediate level course designed to introduce students to wire-fed, semi-automatic welding processes for mass-production welding applications, i.e. Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Submerged Arc Welding (SAW). This course emphasizes safety, theory, characteristics and settings for power supplies and wire feeding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high volume production applications.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **WELD 055**

##### **Electric Arc Welding**

*Prerequisite: WELD 045*

*Advisory: READ 022 or appropriate assessment*

This course emphasizes skills in electric arc welding. Course content includes intensive practices in both horizontal and vertical positions. Students will learn how to properly adjust the welding machines when using different welding electrodes. This course also emphasizes advanced theory for arc welding required for the WELD 060 welding class.

**4 Units**

**36 Lecture hours**

**108 Lab hours**

#### **WELD 060**

##### **Production Welding Techniques**

*Advisory: READ 023 or appropriate assessment; WELD 045*

This is an intermediate level course designed to introduce the student

to welding techniques used in high volume production manufacturing applications. This class will focus on GMAW and GTAW for mild steel, stainless steel aluminum, and will include pulsed-arc applications for both processes. In addition, the student will be introduced to welding fixtures, welding positioners and other auxiliary welding equipment. Emphasis will be placed on shop safety and on developing proper working procedures.

**4 Units**

**36 Lecture hours**

**108 Lab hours**

#### **WELD 065**

##### **Inert Gas Welding**

*Prerequisite: WELD 040*

*Advisory: READ 022 or appropriate assessment*

This course offers specialized training and introduction in theory and manipulative skills of the inert-gas welding process. Discussed are the use and adjustments of welding equipment. Welding is practiced on ferrous metals, including stainless steel, and on non-ferrous metals such as aluminum. Necessary instruction is provided to perform TIG welding on copper, magnesium, titanium, and cast iron.

**4 Units**

**36 Lecture hours**

**108 Lab hours**

#### **WELD 070**

##### **Advanced Inert Gas Welding**

*Prerequisite: WELD 065*

*Advisory: READ 022 or appropriate assessment*

This is an advanced course in Gas Tungsten Arc Welding (Heli-Arc). Emphasis will be on specialty and precision welding, including semi-automated methods. Necessary instruction will be given on the requirements for passing the Mil Std 1595 A certification test.

**4 Units**

**36 Lecture hours**

**108 Lab hours**

#### **WELD 075**

##### **Certification Welding**

*Prerequisite: WELD 050; WELD 055; WELD 060*

*Advisory: READ 022 or appropriate assessment*

This course offers specialized training and instruction in structural steel welding. Exercises will include vertical and overhead position welding on 1 inch test plates for L.A. City Certification. Emphasis is placed on safety, structural steel welding codes, procedures and proper training to pass the written and performance tests for the following certification: semi-automatic and shielded metal arc welding.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **WELD 080**

##### **Certification Welding**

*Prerequisite: WELD 060; WELD 065*

*Advisory: READ 023 or appropriate assessment; WELD 045*

This course offers specialized training and instruction which are necessary to pass the written and performance tests for the following certification types and processes: light gage steel and structural aluminum for the Los Angeles City Building Department. Emphasis is placed on safety, test preparation, procedures, and destructive testing.

**2 Units**

**18 Lecture hours**

**54 Lab hours**

#### **WELD 085**

##### **Metal Fabrication**

*Prerequisite: WELD 040; WELD 050; WELD 055; WELD 065*

*Advisory: READ 022 or appropriate assessment*

This course offers specialized training in metal fabrication. Instruction will include manipulative skills, layout methods, safety, and how to operate a wide variety of machines to perform either a singular or sequential operation.

**3 Units**

**27 Lecture hours**

**81 Lab hours**

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## **WILDLAND FIRE TECHNOLOGY**

**Division of Public Safety**

#### **WFT 040**

##### **Firefighter Type 2 (S130)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This is the first course in the wildland firefighter training series. This course provides students with entry level firefighter skills for wildland fire incidents. This course also provides instruction in wildland fire behavior, hazard recognition, human factors in high risk environments, basic incident command system, radio operations, and documentation. Classroom and field exercises will prepare the student for a position as a Firefighter Type 2 (FF2). This course meets the National Wildfire Coordinating Group's (NWCG) requirements for S-130/S-190/L 180/I-100 and J-158.

**2 Units**

**32 Lecture hours**

**12 Lab hours**

#### **WFT 041**

##### **Firefighter Type 1 (S131)**

*Prerequisite: WFT 040*

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This is the second course in the

wildland firefighter training series. This course prepares students with additional leadership and skills sets needed to make leadership and tactical decisions on wildland fire incidents. This course also provides instruction in the Risk Management Process, fireline reference materials, portable fire pump operations, and staging area standard operating procedures and practices. Classroom and field exercises will prepare the student for a position as a Firefighter Type 1 (FF1) and will provide the skills necessary to become an Incident Commander Type 5 (ICT5) and Staging Area Manager. This course meets the National Wildfire Coordinating Group's (NWCG) requirements for S-131/S-133/S-211/J236/RT-130.

**2 Units**  
**32 Lecture hours**  
**12 Lab hours**

#### **WFT 042**

##### **Portable Pumps and Water Use (S211)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course provides students with practical knowledge and skills in the use of portable fire pumps and related equipment during wildland fire incidents. The course consists of three skill areas: supply, delivery, and application of water. Students will be required to demonstrate their knowledge of correct water use, basic hydraulics, and equipment care. Field exercises, demonstrations, and evaluations will cover set up, operation, and maintenance of pump equipment. This course meets the National Wildfire Coordinating Group's (NWCG) requirements.

**1 Unit**  
**16 Lecture hours**  
**12 Lab hours**

#### **WFT 043**

##### **Wildland Fire Chain Saws (S212)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course provides the basic knowledge, understanding, function, maintenance, and use of internal combustion engine powered chain saws. The student will also learn the tactical use of wildland fire chainsaws. Field exercises support entry level training for fighters with little or no previous experience in operating a chain saw. The field exercises will provide students with hands-on cutting experience in surroundings similar to fire line situations. This is an entry level course for students interested in wildland fire suppression and is highly recommended prior to enrolling in intermediate level wildland fire related course. Students who have already completed this course may retake it in order to advance their skill classifica-

tion. This course meets the National Wildfire Coordinating Group's (NWCG) requirements.

**1 Unit**  
**16 Lecture hours**  
**16 Lab hours**

#### **WFT 044**

##### **Introduction to ICS (I100)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course provides an introduction to the Incident Command System (ICS-100), the National Incident Management System (ICS-700), the National Response Framework (ICS-800), and Emergency Support Function #4 – Firefighting (ICS-804). This course also provides a basic introduction to wildland fire management (S-110) and a basic working knowledge of the human performance concepts in dynamic and high risk environments (L-180). This course meets the National Incident Management System (NIMS) and National Wildfire Coordinating Group (NWCG) National Standard Curriculum.

**1 Unit**  
**18 Lecture hours**

#### **WFT 045**

##### **ICS for Single Resources (I200)**

*Prerequisite: WFT 044*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed to enable personnel to operate efficiently during an incident or event within the Incident Command System (ICS). The course focuses on the implementation of ICS and single resources. Topics include ICS fundamentals review, leadership and management, delegation of authority, management by objectives, ICS functional areas and positions, briefings, organizational flexibility, and transfer of command. This course provides training and resources for personnel who are likely to assume a supervisory position within the ICS. This course meets the National Incident Management System (NIMS) National Standard Curriculum.

**0.7 Unit**  
**13 Lecture hours**

#### **WFT 046**

##### **Intermediate ICS (I300)**

*Prerequisite: WFT 045*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course provides description and detail of the Incident Command System (ICS) organization and operations in supervisory roles on expanding or Type 3 incidents. Topics include ICS fundamentals review, incident/event assessment and agency guidance in establishing inci-

dent objectives, Unified Command, incident resource management, planning process, demobilization, transfer of command, and close out. Students will be organized into teams for classroom exercises that replicate an incident operation. This course meets the National Incident Management Systems (NIMS) National Standard Curriculum.

**1 Unit**  
**24 Lecture hours**

#### **WFT 047**

##### **Advanced ICS (I400)**

*Prerequisite: WFT 046*  
*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*

This course provides skills and resources required for advanced application of the Incident Command System (ICS) organization and operations. This course expands on ICS-100, ICS-200, and ICS-300 courses and is intended for command and general staff positions. Topics include ICS fundamentals review, major and/or complex incident/event management, area command, and multiagency coordination. Group exercises will emphasize advanced ICS concepts. This course meets the National Incident Management Systems (NIMS) National Standard Curriculum.

**1 Unit**  
**18 Lecture hours**

#### **WFT 077**

##### **Wildland Fire Academy**

*Prerequisite: Carry a 45 lb. pack three miles within a 45 minute time period; Must complete and pass a US Forest Service Physical*

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*

This course is designed for those students who desire to gain certification through the NWCG (National Wildland Fire Coordinating Group) as a Wildland Firefighter. This course provides training in hand crew formation, fire line construction and the use of wildland equipment. Students will learn about wildland firefighter safety, fire behavior, protective clothing and wildland fire tools. This course includes arduous physical conditioning as day and night time hikes and other outdoor activity is included. This academy provides the required training for the US Forest Service and CAL Fire agencies as a wildland firefighter for certification purposes.

**13 Units**  
**162 Lecture hours**  
**216 Lab hours**

**WFT 101****Wildland Fire Behavior**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment; MATH 020 or appropriate assessment*  
*Transfers to: CSU*

This course is one in a series of core courses required for the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand basic wildland fire behavior, wildland fire predictions, and wildland fire operation safety. Wildland fire environmental factors and the tools required to monitor weather and fire behavior will be discussed as it relates to wildland fire predictions. This course meets or exceeds the National Wildfire Coordinating Group's (NWCG) requirements.

**3 Units**

**54 Lecture hours**

**WFT 102****Wildland Fire Fighter Safety and Survival**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is one in a series of core courses required for the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand occupational safety and hazards associated with wildland firefighting operations. Emphasis will be placed on situational awareness, protective measures, accident avoidance procedures, and the risk management process. Students will also review fire ground near misses, entrapments, and fatalities. This course meets or exceeds the National Wildfire Coordinating Group's (NWCG) requirements.

**3 Units**

**54 Lecture hours**

**WFT 103****Wildland Fire Operation (Ground Air)**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand ground and air operations associated with wildland firefighting operations. Emphasis will be placed on incident command system use, strategy, tactics, hazards, resource typing, management, and safety procedures during wildland fire incidents. This course meets or exceeds the National Wildfire Coordinating Group's (NWCG) requirements.

**3 Units**

**54 Lecture hours**

**WFT 104****Wildland Fire Investigation, Prevention and Public Information**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information and skills necessary to understand the roles and functions of the Public Information Officer (PIO, S-203), Fire Prevention Education Team Member (PETM, P-101), and the Wildland Fire Investigator (INVF, FI-110). Various wildland fire associated class projects will challenge the student's public speaking, report writing, and presentation skills. This course meets or exceeds the National Wildfire Coordinating Group's (NWCG) requirements.

**3 Units**

**54 Lecture hours**

**WFT 105****Wildland Fire Logistics, Finance and Planning**

*Advisory: ENGL 030 or ENLA 034 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course is one in a series of core courses required by the Wildland Fire Technology Certificate of Achievement and Associate of Science Degree program. This course provides students with information necessary to understand the responsibilities and functions of the logistics, finance, and planning sections. Emphasis will be placed on how the different incident command system sections are organized and utilized during wildland fire incidents. This course meets or exceeds the National Wildfire Coordinating Group's (NWCG) requirements.

**3 Units**

**54 Lecture hours**

**WFT 290****Cooperative Work Experience/ Internship for Wildland Fire Technology Related Fields**

*Advisory: ENGL 035 or ENLA 100 or appropriate assessment; READ 023 or appropriate assessment*  
*Transfers to: CSU*

This course supports and reinforces on-the-job training in the Wildland Fire Technology field under supervision of a college instructor and is facilitated by the use of learning objectives. The student will be working in a skilled or professional level assignment in the area of Wildland Fire Technology and will meet performance objectives related to instruction that are above and beyond the conditions of regular employment. This course is intended for students whose job is related to the field of fire technology and have completed or enrolled in the appropriate coursework. "Contact the CWE office regarding re-enrollment procedures".

**Student Unpaid Internship:**

*1 Unit/60 hours; 2 Units/120 hours;  
 3 Units/180 hours; 4 Units/240 hours*

**Student Paid Internship**

*1 Unit/75 hours; 2 Units/150 hours;  
 3 Units/225 hours; 4 Units/300 hours*

**1 to 4 Units**

**3 to Lecture hours**

**60 to 300 hours**

# Non-credit Courses

## NBAS 004

### General Academic Advisement

Courses designed to assist awareness of college programs and services and exercising good judgment in the selection of classes and an academic path. Topics can include basic skills assessment, campus life, academic and career choices, and other related subjects.

0 Unit

18 Lecture hours

## NBAS 005

### Personal and Career Exploration

Courses to increase awareness of processes for personal and career growth. Intellectual, social, emotional, and physical development; personal values clarification; decision making; identification of needs and methods of satisfying; human sexuality and family life; and accepting and assuming responsibility for own behavior; and investigation into career and life planning alternatives can be explored. Included can be diagnostic testing, survey of interests, and capabilities, and development of positive self-image through group interaction.

0 Unit

18 Lecture hours

## NBAS 008

### Personal Learning Skills/Basic Skills

This course assists the student to become more effective and efficient in developing skills and knowledge necessary to function in a work setting. Skills may include psychomotor skills, communication skills and computer software skills. Opportunities to develop critical thinking skills in simulated situations are provided. The student may use computer assisted instructional programs, word processing, equipment related to the work setting, audiovisual materials and computer software to meet program objectives. Faculty and peers will provide tutoring services and assist students in completing assignments.

0 Unit

120 Lecture hours

## NBAS 009

### College Refresher Basic Skills/Individual Study

Courses for individual study in basic reading, writing and mathematics. Areas covered can include any basic skill that needs to be improved for college learning and/or career and personal growth.

0 Unit

20 Lecture hours

20 Lab hours

## NBAS 010

### College Refresher Math/Individual Study

Courses for individual study in basic mathematics. Areas to be covered can include whole numbers, fractions, decimals, percent, measurement, applications in consumer math, and other topics determined by individual student need.

0 Unit

40 Lab hours

## NCHS 001

### Health and Fitness

This is an open-entry, open-exit course to develop and enhance a student's knowledge of the importance of healthy lifestyles and to further develop skills which will facilitate a personal fitness program. Student's will also participate in specific activities that develop an individual's level of physical fitness.

0 Unit

1 to 54 Lab hours

## NCHS 002

### Beginning Jujitsu: Self Defense for Adults

This course is designed to teach the basic skills of self-defense. Students will be taught skills related to coordination, quick reflex response, how to build stamina, speed, and strength. They will learn all phases of punches, blocks, kicks, hand releases and breaks, two-step fighting, judo and jujitsu falls. Students will practice strategies of protecting themselves from attackers.

0 Unit

48 Lecture hours

## NCIT 002

### Citizenship Preparation

This course will guide persons seeking United States Citizenship in the steps required to become a citizen. Students will prepare to take the citizenship examination and will receive assistance in completing the appropriate forms.

0 Unit

45 Lecture hours

## NCOA 001

### Painting for Older Adults

This course offers the older adult an individual approach to painting and creative arts. Topics can include art appreciation and art history; awareness of line, color, shape and form; techniques in drawing and progression through color mixing and canvas painting. Creativity and general art knowledge will be taught in a friendly and relaxed environment allowing each artist to work at their own pace.

0 Unit

1 to 48 Lecture hours

## NCOA 002

### Music Workshop for the Third Age

Courses for instrumental and vocal musical experiences. Included can be rehearsals and performances in cooperation with the Rio Hondo Chapter of Sweet Adelines; other local choral and/or singing groups; and instruction in learning to play a musical instrument.

0 Unit

1 Lecture hours

1 Lab hours

## NCOA 007

### Chorus Singing for the Older Adult

This course introduces older adult students to a variety of choral music and explores its cultural and historical aspects. Students will gain knowledge of posture, vowel modification, elements of phrasing and harmony. Students will perform vocal exercises and practice breathing techniques appropriate for the older adult.

0 Unit

1 to 48 Lecture hours

## NCOA 008

### Computers Unlimited for Older Adults

This course is designed for the older adult who thinks he or she will never learn to use a computer. Students will build basic skills that will prepare them to write documents, send e-mail, use online banking or simply enjoy surfing the Internet. Mastery of the basic skills will let you grow from simple accomplishments to things you never dreamed possible. Our gentle, easy approach will show you the many ways that computers can be fun and interesting.

0 Unit

1 to 24 Lecture hours

1 to 8 Lab hours

## NCOA 010

### Hatha Yoga for Older Adults

This class uses active and passive movements which are adapted for older adults. Movements include stretching, relaxation, and breathing exercises. Students will learn repetitive skill building, weight bearing poses and become familiar with working together in rhythm.

0 Unit

1 to 48 Lecture hours

## NCOA 012

### Physical Fitness for the Older Adult

This physical fitness class is designed for the older adult and offers instruction in movement to maintain and increase range of motion, build muscle strength, maintain coordination, flexibility and balance. Class topics include discussions on nutrition, the effects of aging, safety factors and memory skills.

0 Unit

1 to 48 Lecture hours

**NCOA 013****Current Topics for Older Adults**

This course presents older adults with various topics for discussion and class activities based on the student's individual interests and backgrounds. Older adults will explore international, national and local events and issues from a current and historical viewpoint.

**0 Unit****1 to 24 Lecture hours****NCOA 014****Tai Chi Chuan for Older Adults**

This course introduces older adults to a Chinese health exercise which is neither vigorous nor strenuous. It is suitable for older adults who want to exercise to gain or maintain good health. It will strengthen the muscles and organs, relax the mind and body, improve blood circulation, and increase memory and concentration.

**0 Unit****1 to 24 Lecture hours****NCOA 015****Creative Writing for Older Adults**

This course is for older adults and teaches both beginning and experienced writers how to create and shape autobiographies, fiction, non-fiction and poetry into readable and publishable forms. Participants will put their experiences on paper and analyze quality, selection and structure of written materials through group discussion and projects.

**0 Unit****1 to 24 Lecture hours****NESL 001****English as a Second Language**

Entry level courses designed to provide instruction in basic skills in English and related subjects. Speaking, listening, reading, writing and comprehension skills included.

**0 Unit****1 to 72 Lecture hours****NESL 015****ESL Beginning**

This is a competency-based course that focuses on basic verbal communication within routine situations common in everyday life within an English-speaking setting. Emphasis is on communication within school, work, and community domains. Successful completion of this course will prepare students to enter NESL 016.

This course is designed for language learners at levels below Rio Hondo College's Credit ESL Program.

**0 Unit****58.7 Lecture hours****NESL 016****ESL Intermediate Low**

*Prerequisite:* ESL 015 or equivalent placement

This is a competency-based course that focuses on expanded verbal communication within routine situations common in English-speaking environments. Emphasis is on communication within school, work, and community domains combined with the introduction of academic English. Successful completion of this course will prepare students to enter NESL 017.

This course is designed for language learners at levels below Rio Hondo College's Credit ESL Program.

**0 Unit****58.7 Lecture hours****NESL 017****ESL Intermediate High**

*Prerequisite:* ESL 016 or equivalent placement

This is a competency-based course that builds upon the skills learned in NESL 016 and prepares English learners to comprehend and communicate in written and spoken English for a variety of audiences and purposes. Successful completion of this course will prepare students to enter NESL 018.

This course is designed for language learners at levels below Rio Hondo College's Credit ESL Program.

**0 Unit****58.7 Lecture hours****NESL 018****ESL Advanced**

*Prerequisite:* ESL 017 or equivalent placement

This is the highest level Non-credit ESL course. It focuses on advanced spoken and written communication within English-speaking school, work, and community domains in a variety of formal and informal contexts. This course is designed for language learners at levels below Rio Hondo College's Credit ESL Program; however, upon its successful completion, it will prepare them for direct entry.

**0 Unit****58.7 Lecture hours****NESL 035****ESL Multi-Level**

This course focuses on preparing students to use English to achieve tasks within a variety of real-life situations such as a doctor's office or a department store. Students are instructed to be able to listen, speak, read, and write in English in context-specific environments.

**0 Unit****1 to 144 Lecture hours****NESL 036****Family Literacy**

This course focuses on engendering reading and literacy as a fundamental component of a healthy, well-functioning family. The family-oriented assignments promote the seamless integration of reading across school and home boundaries.

**0 Unit****1 to 72 Lecture hours****NHAN 001**

Art Workshop for the Handicapped Courses for cultural enrichment and awareness of many different forms of art. Emphasis is on therapeutic value.

**0 Unit****1 to 18 Lecture hours****1 to 18 Lab hours****NHEC 002****Soap Making as an Art and a Business**

This course is designed for anyone wanting to expand their creative skills for personal satisfaction or as a business. Students will create different kinds of soaps such as glycerin or coconut soap. The use of molds, layering of colors, and adding herbs and fragrances will be discussed.

**0 Unit****1 to 54 Lecture hours****NVOC 001****Asbestos Abatement Workers Training Program**

This course is designed to train students in recognizing procedures dealing with removal and/or encapsulation of asbestos. Other topics include products and materials that may become a hazard, options for dealing with asbestos, and potential health effects on exposure.

**0 Unit****18 Lab hours****NVOC 0011****Acoustical**

This course is designed to introduce the learner to the standard methods of assemblies and codes required for acoustical ceiling construction. Upon completion of this course the learner will have a working knowledge of assembling standard grid for ceilings and soffits. Hand tools are mandatory.

**0 Unit****18 Lecture hours****NVOC 0012****Drywall/Lath**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the drywall/lath field within the carpentry industry. Course topics include: proper techniques, procedures and tools used in the drywall finishing trade, basic framing/material identification, basic lathing, framing of ceil-

ings and soffits, blueprints, suspended ceilings, curves and arches, and light gage welding. Classroom instruction and practical hands-on finishing will be applied. Drywall hand tools are mandatory.

**0 Unit**  
**140 Lecture hours**  
**140 Lab hours**

**NVOC 0013**  
**Class A Concrete**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the concrete field within the carpentry industry. Modules cover the following topics: forming methods for flatwork, tilt-ups, wall forms, column forms, beams and decking forms, stairs and ramps, foundations, walls, windows, welding, and bridge construction.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0014**  
**Finish Carpentry**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the finishing field within the carpentry industry. Modules cover the following topics: cabinet construction, cabinet installation, cabinet fasteners, show cases, commercial fixtures, cabinet finishing, partitions, fitting room structures, residential and commercial moldings, laminates, stair trims, doors, door frames, swinging door installation, security hardware, electronic doors and closers, and welding.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0015**  
**Floor Installation**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the floor field within the carpentry industry. Modules cover the following topics: hand and power tools, jobsite preparation, and hardwood installation. Students will learn how to install, strip, and plank hardwood flooring in the most basic applications.

**0 Unit**  
**18 Lecture hours**

**NVOC 0016**  
**Framing**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the framing field within the carpentry industry. Modules cover the following topics: wall framing, plates, wall layouts, structural connectors, bracing, aligning, floor layouts, floor systems, stair building and layouts, winders, curved stairs, building exteriors, balconies, bay windows, columns, pop-outs, trims, siding, roof systems,

hips, gable roofing, dormers, rafter construction, metal framing, fasteners, metal trusses, and panelized roof systems.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0017**  
**Lath/Drywall**

This course is designed to teach the techniques and skills needed for freeform lathing. Skills such as proper layout, use of grids, proper tools, methods to bend rebar and pencil rod, welding, cutting, halting and tying of lath. Hand tools are mandatory.

**0 Unit**  
**18 Lecture hours**

**NVOC 0019**

**Tilt-Up**

Students will be instructed in layout techniques for a typical tilt-up panel and the importance of 3-4-5 methods of squaring a panel. They also will learn how to identify certain openings and the location of finish floor lines and roof lines through blueprints.

**0 Unit**  
**18 Lecture hours**

**NVOC 0020**

**Scaffolding**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the scaffolding field within the carpentry industry. Modules cover the following topics: safety procedures, regulations, industry rules, scaffold planning, worksite applications, welded frame/mobile tower scaffolds, welded frame/tower scaffold applications, tube and clamp assemblies and worksite applications, scaffolding systems, shoring, re-shoring, rigging, rigging safety, and estimating.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0021**

**Cabinet/Millwork**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the cabinetmaking field within the carpentry industry. Course topics include: applications of wood products, hand and power tool usage, material usage, layout/millwork, jigs/fixtures, architectural details, shop drawings, estimating, CAD/CAM and construction of a cabinet, along with current glues and abrasives.

**0 Unit**  
**140 Lecture hours**  
**420 Lab hours**

**NVOC 0023**

**Health & Safety**

This course provides basic First Aid/CPR Training in the performance of emergencies for conscious and unconscious victims, recognizing signs of a heart attack and the proper techniques

for administering CPR. These skills are presented for use on adults, children and infants. First Aid training deals with controlling bleeding, burns, sprains, strains, poisoning, broken bones and caring for victims of sudden illness. These classes meet or exceed California or Federal OSHA training requirements. American Red Cross I.D. cards will be issued upon successful completion of the course.

**0 Unit**  
**18 Lecture hours**

**NVOC 0024**

**Acoustical**

This course is designed to expand on the usage of acoustical materials and products used in the acoustical industry. Upon the completion of this class the learner will have a working knowledge of glue up, concealed ceilings/walls and the usage of compass for ceilings and soffits. Hand tools are necessary.

**0 Unit**  
**18 Lecture hours**

**NVOC 0025**

**Blueprints**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the blueprint reading field within the carpentry industry. Course topics will include: basics of reading, understanding and visualizing the blueprint, terms, symbols and definitions from several trades will be incorporated into prints showing residential/commercial buildings, slopes, grades, and computer designs. Layout tools will be necessary.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0026**

**Computers**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the computer application field within the carpentry industry. Course topics will include: basic principles of computers, general computer usage, processing, spreadsheets, databases, and the world wide web. Lab sessions include individual computer use.

**0 Unit**  
**20 Lecture hours**  
**20 Lab hours**

**NVOC 0027**

**Welding**

This course provides an introduction to basic welding. Students will learn about the various welding machines as well as electrodes and their specific application. They also will be instructed in the proper and safe use of oxygen an acetylene torch. Demonstration and testing will be required.

**0 Unit**  
**18 Lecture hours**

**NVOC 0029**  
**Effective Supervision Certificate Program**

This course is designed for individuals promoted into supervisory positions. The class will assist employers who have promoted line employees with little or no formal supervision training, as well as those anticipating a career that includes supervising other individuals. Topics will focus on six areas comprised of basic supervisory skills and concepts. Students are provided with an overview of what is expected of an effective supervisor and what skills are required to successfully perform in that capacity. Real-life business situations are discussed and evaluated. Students take knowledge gained back to their respective work venues and conversely bring examples to the class for discussion.

**0 Unit**  
**18 Lecture hours**

**NVOC 005**  
**Theatre Production Workshop**

This course will introduce students to all aspects of preparing for and presenting a full theater production. Topics covered will include technical set-up of the stage, the dress rehearsal, pre-show preparation, techniques for striking the set and the special needs of a traveling show.

**0 Unit**  
**18 Lecture hours**  
**18 Lab hours**

**NVOC 008**  
**Fundamentals of Law Enforcement/ Individual Study**

This course is designed to provide law enforcement students or those involved in a related public service subject to expand on their knowledge in the major points of law enforcement. Topics include history and general development of law enforcement, ethical and moral standards, California law, and other related issues. Students will receive individualized instruction tailored to their plan of study.

**0 Unit**  
**1 to 500 Lab hours**

**NVOC 014**  
**College Community Orchestra**

This is an ongoing program designed for preparation for employment as musicians. Participants may perform with a symphony orchestra such as Rio Hondo Community College.

**0 Unit**  
**1 to 8 Lecture hours**

**NVOC 015**  
**Practical Experience in Fire Suppression**

This course is designed to provide fire technology students or those involved in a related fire science subject to expand on their knowledge in the major points of fire service. Topics include the traditions of the fire service, general development of a fire-

fighter, ethical and moral standards, and other related issues pertaining to the fire service. Students will receive individualized instruction tailored to their personal plan of study.

**0 Unit**  
**1 to 500 Lab hours**

**NVOC 018**  
**ACEDD-GIS Skills Development**

This course complements the CIV, ARCH, ENGT, LAND and GIS lab and lecture courses and is designed to provide an additional opportunity for students to practice concepts covered in the corequisite courses and enhance their board drafting and CADD skills for work place productivity. These instructional activities are not available in the regular lecture / lab course and are not required for the grade in the corequisite course.

**0 Unit**  
**1 to 200 Lab hours**

**NVOC 038**  
**Real Estate Practice**

This class is an introduction to professional aspects of the real estate business. Topics include agency responsibilities for the salesperson and the broker, office management, how to list and prospect property, selling and marketing techniques, advertising, financing, escrow and closing procedures. Students will acquire a general understanding of fields related to real estate such as finance, appraisal, escrow, and investing. The class will detail the areas necessary to conduct a modern real estate brokerage business. This course is approved by the California Department of Real Estate as one of the required courses for the State Sanctioned Conditional Real Estate Sales Persons License.

**0 Unit**  
**1 to 48 Lecture hours**

**NVOC 039**  
**Real Estate Finance**

This course is designed to help the new licensee, the experienced real estate agent, the investor, and the lender gain a better understanding of the complex world of real estate finance. It covers all aspects of real estate financing from filling out the loan application to closing the loan. The course details qualifying standards, disclosure requirements, and loan documents. This course is approved by the California Department of Real Estate as one of the electives for the State Sanctioned Conditional Real Estate Sales Persons License.

**0 Unit**  
**1 to 48 Lecture hours**

**NVOC 040**  
**Real Estate Principles**

This is a prerequisite course for the real estate licensing examination. In this course students will learn information required for the acquisition of a California real estate license. Topics

include the nature of real estate, the foundation of our property laws, land descriptions and measurements, how titles are held, acquisition and transfer, deeds, liens and encumbrances, elements of a contract, landlord and tenant law, real estate mathematics and financing. In addition, you will be introduced to the terminology and forms commonly used in everyday real estate transactions. This course is approved by the California Department of Real Estate as a State Sanctioned Pre-Licensing course.

**0 Unit**  
**1 to 48 Lecture hours**

**NVOC 041**  
**Real Estate Appraisal**

In this course students will learn the purpose and importance of appraisals, land values and their characteristics, the process of appraising, site analysis, and considerations. They will also obtain knowledge of construction methods, materials used in cost approaches, accrued depreciation analysis, income and expense analysis, capitalization theory, and techniques in the income approach method of appraising. This course is approved by the California Department of Real Estate as one of the electives for the State Sanctioned Conditional Real Estate Sales Persons License.

**0 Unit**  
**1 to 48 Lecture hours**

**NVOC 043**  
**Conversational Spanish**

This introductory class is designed for beginning Spanish speakers who are looking to learn Spanish for use in a workplace setting. This class will be of particular interest to supervisors and managers that oversee a workforce of predominantly Spanish speaking individuals. The focus is on learning how to speak rather than on grammar. The class will cover simple tenses – present, past, imperfect and future. Students will be asked to listen to Spanish radio, watch Spanish television, read Spanish newsprint and participate in Spanish conversations.

**0 Unit**  
**14 Lecture hours**

**NVOC 059**  
**Introduction to Welding Processes**

This is an introductory class designed to familiarize the student with several welding processes that are currently used in the welding and metal fabrication industry. This course offers an overview and basic introduction to the theory and practice of a variety of welding and metal cutting methods. This course will emphasize safety, theory, procedure, and practical skill development.

**0 Unit**  
**1 to 18 Lecture hours**  
**1 to 54 Lab hours**

**NVOC 060****Semi-Automatic Welding Processes**

This is an intermediate level course designed to introduce students to wire-fed, semi-automatic welding processes for mass-production welding applications, i.e. Gas Metal Arc Welding (GMAW), Flux Cored Arc Welding (FCAW), and Submerged Arc Welding (SAW). This course emphasizes safety, theory, characteristics and settings for power supplies and wire feeding units, electric current settings, electrode identification and selection, welding positions, and welding of ferrous and non-ferrous metals. Special emphasis will be placed on developing proficiency and speed for high volume production applications.

**0 Unit****1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 061****Production Welding Techniques**

This is an intermediate level course designed to introduce the student to welding techniques used in high volume production manufacturing applications. This class will focus on GMAW and GTAW for mild steel, stainless steel aluminum, and will include pulsed-arc applications for both processes. In addition, the student will be introduced to welding fixtures, welding positioners and other auxiliary welding equipment. Emphasis will be placed on shop safety and on developing proper working procedures.

**0 Unit****1 to 36 Lecture hours****1 to 108 Lab hours****NVOC 062****Introduction to Fabrication Processes**

This is a beginning level course designed to introduce students to various techniques, processes and technologies used in the Fabrication industry. This course will develop skills necessary for translating dimensional information from a shop drawing or blueprint to metallic materials used for production of finished parts and assemblies. Topics covered in this class will include basic blueprint reading, measurement and measuring tools, layout, metal cutting, drilling and tapping, and metal forming. Emphasis will be placed on shop safety and safe and proper use of equipment, tools and materials.

**0 Unit****1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 063****Intermediate Fabrication Processes**

This course is designed to broaden the students' skills and knowledge of metal fabrication techniques. This course will introduce students to basic hand tools and power tools commonly used in the metal fabrication industry. Topics covered in this class will

include structural fabrication, tube bending, stair layout and construction, and fabrication of components from sheet metal. Emphasis will be placed on shop safety and on developing proper working procedures.

**0 Unit****1 to 18 Lecture hours****1 to 54 Lab hours****NVOC 1011****Orientation/Safety**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the general trade safety within the carpentry industry. Course topics will include: introduction to the carpenter's apprentice program, hand tool safety, power tool safety, math, beginning blueprint reading and layouts, trade history and job-site safety.

**0 Unit****20 Lecture hours****20 Lab hours****NVOC 1012****Health/Safety**

This course is designed to meet the needs of Indentured Apprentices with the State of California who are interested in the general trade safety field within the carpentry industry. Course topics will include: Health and Safety Certifications, job safety, fall protection, powder actuated tools, confined space entry, scaffold training, rigging training, aerial lift training, and OSHA training. Certification can be earned in forklift, scaffold, American Red Cross/CPR and Ramset/ Redhead low velocity powder actuated tools.

**0 Unit****112 Lecture hours****112 Lab hours****NVOC 138****Engineering Careers & Applications**

This course is for all students interested in the career field of Engineering Design Drafting. Engineering Careers and Applications will explore the career opportunities and training requirements in the field of engineering and engineering technology. Topics will include the history of engineering, careers in engineering, ethics and responsibilities of the engineer, communicating and problem solving.

**0 Unit****27 Lecture hours****36 Lab hours****NVOC 140****Civil Drafting Fundamentals**

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. The course is study of civil design drafting practices and the preparation of drawings used in the civil engineering field. Students will use Computer Aided Drafting (CADD) software to

complete projects relating to interpretation of survey data, profiles and cross sections, land subdivision, site and grading plans, underground utilities and structures, concrete and structural detailing.

**0 Unit****36 Lecture hours****72 Lab hours****NVOC 150****AutoCAD for Basic CADD Applications**

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of AutoCAD software will be provided. Students will produce 2D orthographic, isometric, and basic 3D models solutions of mechanical and architectural applications.

**0 Unit****54 Lecture hours****54 Lab hours****NVOC 170****MicroStation for Basic CADD Applications**

This course is for students preparing for high technology careers who need the skills necessary to function as an entry level CADD operator or to apply CADD to specific disciplines of mechanical and architectural design, manufacturing, illustration and engineering related documents. An overview of computer graphics and CADD (Computer Assisted Design and Drawing) utilizing the latest release of MicroStation software will be provided. Students will produce 2D orthographic, isometric, and basic 3D models solutions of mechanical and architectural applications.

**0 Unit****54 Lecture hours****54 Lab hours****NVOC 200****Intermediate AutoCAD for Design and Production**

This course is for students pursuing degrees or certificates in the Architecture and Engineering Design Drafting Program and for those who wish to enhance their AutoCAD skills for workplace productivity. The course is an intermediate application study in computer aided design, drafting, and graphics using the latest revisions of AutoCAD. Combined with previously learned technical drafting conventions and basic AutoCAD operational skills, students will use AutoCAD to produce detailed drawings that involve model-space and paper-space, 2D and 3D objects, block attributes and viewport

scales. Emphasis will be placed on working with multiple drawing files using external files to create mechanical, architectural and civil projects.

**0 Unit**  
**45 Lecture hours**  
**54 Lab hours**

**NVOC 241**

**Civil Engineering Drafting & Design**

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Drafting and Design is an intermediate level class in which the practices and the preparation of drawings, pertaining to the civil engineering field, will be expanded to include the development of maps and drawings used for transportation, site development, grading and drainage and road alignment. The student will use Computer Aided Drafting (CADD) to complete the above mentioned projects. Other topics to be covered will include specifications, site details for utilities and underground piping, structural plans and integration of Geographic Information Systems (GIS).

**0 Unit**  
**36 Lecture hours**  
**72 Lab hours**

**NVOC 245**

**Civil Engineering Design & Modeling**

This course is for all students interested in the career field of Civil Design Drafting and Civil Engineering. Civil Design & Modeling is an advanced level class which includes design analysis and the preparation of drawings used in the civil engineering field. The student will use civil engineering software, such as In-Roads and Land Desktop to design, analyze and develop projects relating to transportation, site development, grading, drainage and road alignment and alternatives. Other topics to be covered are terrain modeling, surface editing, alignment editing, plan, profile, cross-sections, earthwork computations and site planning design.

**0 Unit**  
**36 Lecture hours**  
**72 Lab hours**

**NVOC 250**

**Parametric Modeling 3D Applications for Mechanical Design**

This course presents advanced applications of 2D and 3D Computer Aided Design Drafting (CADD) and an introduction to parametric modeling and rapid prototyping utilizing the latest releases of Autodesk Inventor series, SolidWorks, and other parametric modeling software to produce solutions for mechanical applications. Topics covered will benefit all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Course emphasis is given to CADD generated three dimensional graphics using wire frame, surface

modeling, and parametric solids. This course may be taken once for credit towards the major and repeated 2 times to enhance student skills and proficiency levels.

**0 Unit**  
**54 Lecture hours**  
**54 Lab hours**

**NVOC 260**

**Advanced Architecture Using Revit and 3D Software**

This course is for students pursuing an advanced study of BIM (Building Information Modeling) applications as they relate to architecture and the AEC industry (Architecture, Engineering, Construction). Utilizing the latest releases of 3D design software such as Revit and AutoCAD Architecture and previously learned technical and architectural drafting conventions, students will produce two and three dimensional BIM generated architectural drawings and 3D virtual models. This course benefits all students studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

**0 Unit**  
**54 Lecture hours**  
**54 Lab hours**

**NVOC 261**

**Revit for Advanced BIM Architectural, Structural and MEP Applications**

Advanced BIM (Building Information Modeling) applications extends the fundamentals of the Arch 260 class to include Structural, Mechanical, Electrical and Plumbing extensions of the Autodesk Revit Building software. Students will work on both group and individual projects to create and present three-dimensional representation of architectural solutions. Students will also learn the basic process and workflow in creation of Revit Families for use in building models.

**0 Unit**  
**54 Lecture hours**  
**54 Lab hours**

**NVOC 265**

**Pressure Piping Design**

This course is for those students with CAD experience who are interested in the career field of pressure piping design engineering. This course presents the preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is information and work dealing with the location, installation, operation, and maintenance of pumps, steam turbines, compressors, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

**0 Unit**  
**54 Lecture hours**  
**54 Lab hours**

**NVOC 266**

**Pressure Piping Applications**

This course is for all students with a basic piping design understanding interested in the career field of pressure piping design engineering. This course presents the advanced preparation of engineering detail drawings of piping systems for commercial, utilities and industrial plants. Included is advanced information and layout work dealing with the location, installation, operation of pumps, steam turbines, compressors, vertical vessels, horizontal vessels, tanks, heaters, coolers, cooling towers, condenser, reactors, boilers, chillers, heat exchangers and special equipment.

**0 Unit**  
**36 Lecture hours**  
**72 Lab hours**

**NVOC 270**

**SolidWorks for 3D Modeling and Prototype Applications**

This course presents an intensive study in 3D computer graphics and CADD (Computer Assisted Design and Drafting) utilizing the latest release of SolidWorks Software. This course benefits all students in areas of study related to Engineering, Drafting, Design and Computer Graphics. Students will produce three dimensional parametric computer generated virtual models incorporating mechanical design refinements. The course emphasizes high technology skills which are necessary to function as a design professional to apply 3D design graphics technology to specific disciplines of mechanical engineering, machine drafting and design, manufacturing, animation, modeling and illustration. Students will be introduced to a variety of means to directly produce prototype models from CADD generated solid geometry.

**0 Unit**  
**54 Lecture hours**  
**54 Lab hours**

**NVOC 280**

**Advanced MicroStation for CADD & BIM Applications**

This course is for students pursuing an advanced study in MicroStation 3D parametric CADD (Computer Assisted Design and Drafting) and the BIM (Building Information Modeling) approach to building design using Bentley Architecture. Students will apply previously learned drafting conventions to produce two and three dimensional CADD and BIM generated mechanical and architectural drawings and virtual design models. This course benefits all students studying Architecture, Civil, Engineering of all types, Drafting, Design and Computer Graphics. High technology skills which are necessary to function as a designer or CADD Drafter are emphasized.

**0 Unit**  
**54 Lecture hours**